SULLIVAN CREEK RECREATION SITES

Restoration Plan for Alternative 1

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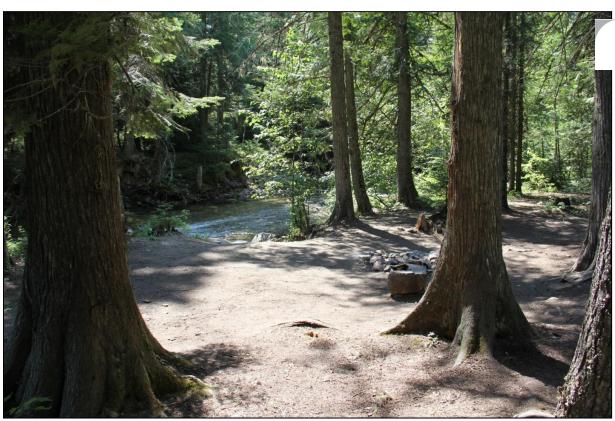




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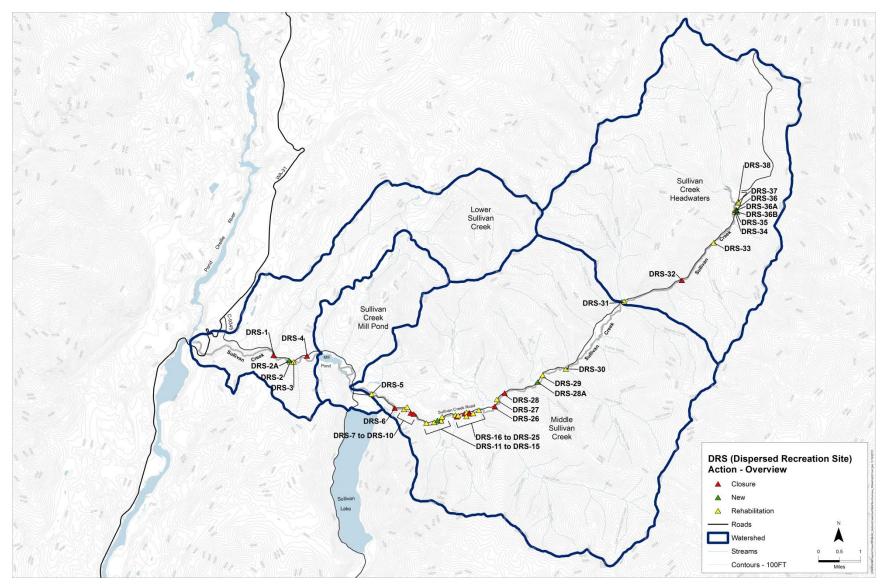
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Figure 0-1. Sullivan Creek Recreation Site Restoration Project Vicinity



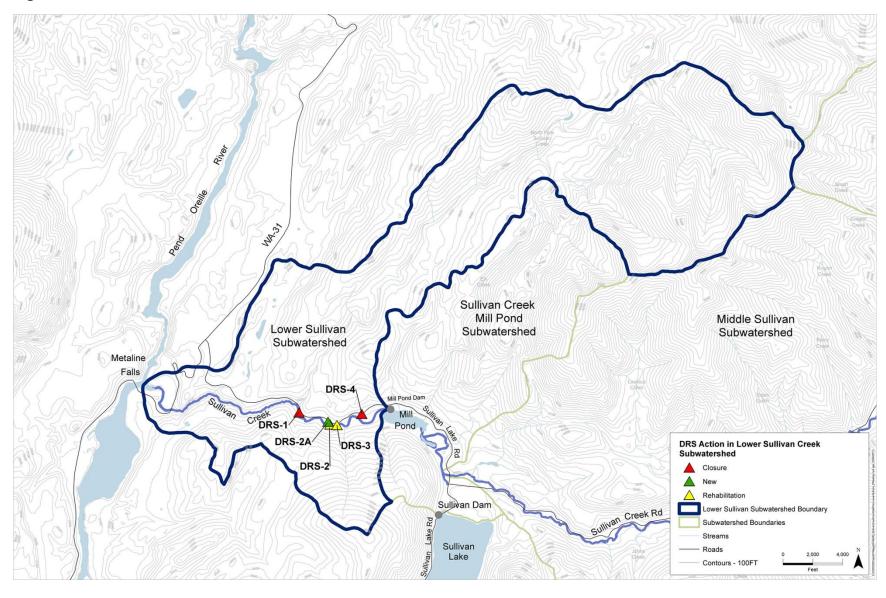


Figure 0-2. Sullivan Creek Recreation Sites - Lower Sullivan Creek Subwatershed

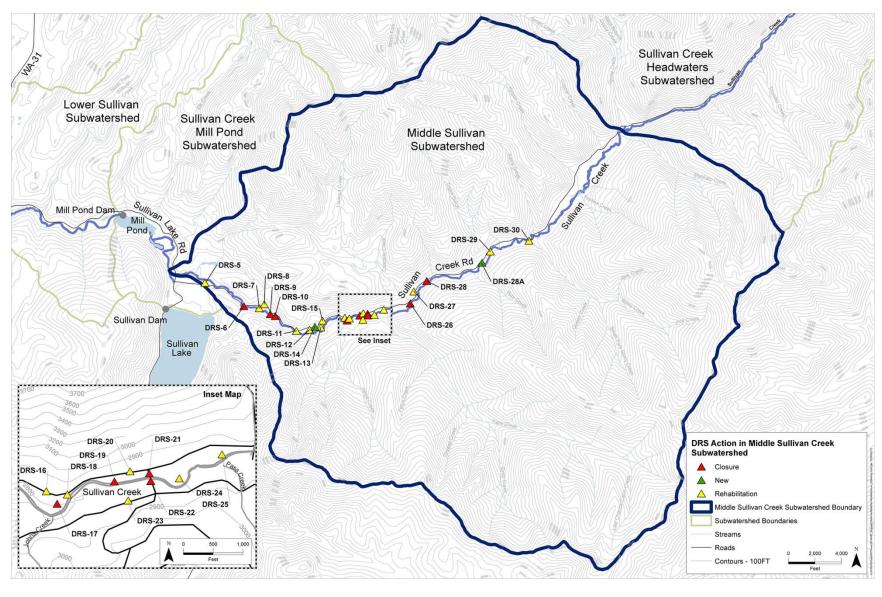


Figure 0-3. Sullivan Creek Recreation Sites - Middle Sullivan Creek Subwatershed

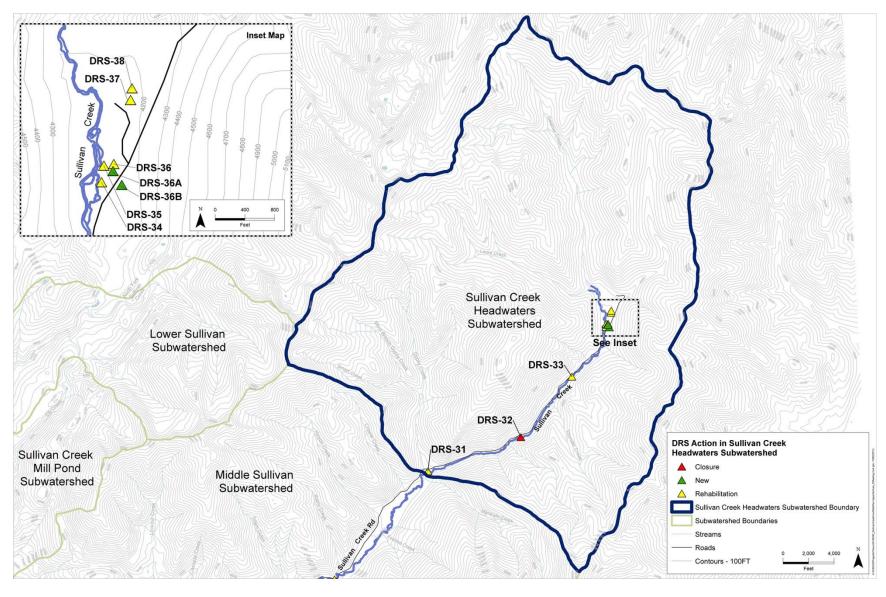


Figure 0-4. Sullivan Creek Recreation Sites - Upper Sullivan Creek Subwatershed

For each recreation site, the following information is provided in this section:

- Site Number Under Proposed Action Restoration Plan A project-specific DRS number, as well as a USFS number, where applicable. These site numbers were assigned during the project's inception and used through the Proposed Action Restoration Plan.
- Site Name Under Alternative 1 Restoration Plan Site Name assigned under Alternative 1.
- **Size** A qualitative estimate of size based on the number of vehicles that could park at the site. For purposes of this effort, site sizes include the following:
 - Small = 1–2 vehicles or one pop-up trailer (no recreation vehicles [RVs]).
 - Medium = 3–4 vehicles or one medium to large RV.
 - Large = 5 or more vehicles or 1 or more RVs.
- Area of Impact An estimate of the total area of existing use patterns. This
 estimate includes all areas within an approximate impact boundary (i.e., area of
 observed impact) at each site.
- Site Description A narrative of current conditions based on field observations.
- Estimated Use Level and Types— A qualitative estimate of use based on anecdotal USFS observations and general types of recreation use allowed and/or occurring at the site (N. Berger, pers. comm., 2014 and 2015). For purposes of this effort, estimated site use levels include:
 - Low = some summer season weekend use.
 - o Moderate = summer season weekend use with some weekday use.
 - High = summer season use during weekends and weekdays, as well as some shoulder season use.
- **Habitat Issues/Concerns** A narrative of identified aquatic and riparian habitat issues and/or concerns based on field observations.
- Alternative 1 Site Treatment A narrative description of the proposed prescriptive actions at each site.
- Associated Sullivan Creek Restoration Actions A brief description of Sullivan Creek fish habitat restoration actions at or adjacent to each site that would be completed prior to or concurrent with the recreation site restoration actions. The License requires City Light to complete substantial restoration of habitat for native fish in Sullivan Creek. City Light plans to use five of these recreation sites (DRS-11, -12, -17, -26, and -33) to access Sullivan Creek for these fish habitat enhancements.
- **Anticipated Outcome** A brief description of the anticipated outcomes that are likely to result from the proposed treatments.
- **Photographs** Several photographs of each recreation site.

Site Number Under Proposed Action Restoration Plan: DRS-01.

Site Name Under Alternative 1 Restoration Plan: North Fork Sullivan Creek.

Size: Large

Area of Impact: The approximate area of impact of DRS-01 is 24,210 ft².

Site Description: This site is located at RM 2.5 and at Sullivan Lake Road mile 1.3. It is on a low terrace along Sullivan Creek accessed via a single entrance/exit from Sullivan Lake Road. There are at least five distinct use areas (space for a tent or RV/parked vehicle) and six user-defined (user-created) campfire rings at this site. Many of these use areas are adjacent to the streambank. Several user-defined trails leave this site, providing access to other shoreline areas primarily up creek.

Use: High. Overnight, day use, and recreational mining (permitted only in the month of August).

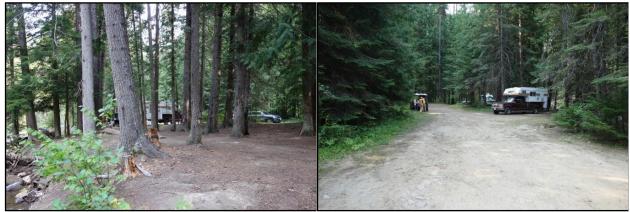
Habitat Issues/Concerns: This site contains large areas of bare soil with little to no understory vegetation in the primary area of use. Soils throughout the site are compacted from vehicle and foot traffic, and drainage is problematic leading to large puddles of mud and standing water in spots. Several trees are damaged, and many have exposed roots due to soil loss and compaction from recreation use. Bank erosion is prevalent at several locations throughout DRS-01, likely from recreational miners moving equipment up and down the streambanks. In addition, some hydraulic mining has been done on both sides of the creek (not an allowed use), undercutting and eroding the banks. The site is located in the floodplain of Sullivan Creek. No vault toilet is nearby and sanitation issues have been documented.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Conversion of the site to day use only.
- Use barrier rocks to delineate appropriate vehicle access and parking areas.
- Iceberging to focus use in select locations and minimize streambank erosion.
- Revegetate the most damaged streambanks.
- Remove the user-defined campfire rings.
- Formalize access to the creek in four streambank locations (including one kayak launch).
- Include walking paths through the site.
- Add an informational kiosk, metal campfire rings, and at least one bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: This site would likely be a staging area and access point for construction of engineered log jams (ELJs), LWD placement, and bank improvements downstream to protect Sullivan Lake Road, and replacement of the North Fork Sullivan Creek culvert with a fish passable structure. Up to 100 pieces of LWD up to 50 feet in length and 2 feet in diameter with rootwads could be placed in this reach. Up to 20 boulders may also be used. Treatment is anticipated in 2026. Impacts to the site would be minimized and restored following project completion. In the interim, site conditions could change substantially following the removal of Mill Pond Dam in 2017 and 2018.

Anticipated Outcome: While this site is disturbed, the proposed restoration treatments would improve riparian and stream habitat. The replanted streambanks and the formalized creek access points would help control erosion and sedimentation. Delineated parking areas would restrict vehicle use to previously disturbed areas and limit the tendency of dispersed recreation sites to expand (i.e., site creep). Iceberging would also help control site creep while still providing areas for recreational use. Once implemented, the treatments would reduce the total affected area. Because this site would be converted to day use only, use levels are anticipated to reduce from high to low.



DRS-01 - Photo 1.

DRS-01 - Photo 2.



DRS-01 - Photo 3.

DRS-01 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-02A (this site was one of five new sites created under the Proposed Action Restoration Plan).

Site Name Under Alternative 1 Restoration Plan: Moon Flats Sites 1 and 2.

Size: Small

Area of Impact: The approximate area of impact of DRS-02A is 4,665 ft².

Site Description: This recreation site, along with DRS-02 and DRS-03, is located at RM 3.2 and at mile 2.4 of Sullivan Lake Road. The site makes use of a relatively flat area immediately on the right-hand side of the non-forest system access route that provides access to the recreation sites in the Moon Flats area (see description in DRS-02). Remnant vehicle tracks and indentations in the ground indicate where vehicles periodically access the site. In addition, there is a user-defined campfire ring and at least one light user-defined trail that provides access to Sullivan Creek. Moon Flats Sites 1 and 2 each have space for one or two tents, or a vehicle with a small camper-trailer.

Use: Low; while use at the adjacent primary use area (DRS-02) at Moon Flats is high, this Moon Flats Sites 1 and 2 are undeveloped and receives little to no use currently. Some overflow use when DRS-02 is at capacity may occur.

Habitat Issues/Concerns: DRS-02A is on a terrace well above the floodplain of Sullivan Creek, and so riparian and other habitat issues are limited, with the exception of sanitation issues. Since use is limited at DRS-02A compared to DRS-02, there is less evidence of trampled vegetation and exposed/compacted soil. This site shares similar characteristics to DRS-02 (e.g., grassy field with unconfined areas for expanded visitor use) and as use potentially increases in the future, the chance of habitat impacts would also increase.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Create two new sites that would become part of the larger Moon Flats Site group.
- Use barrier rocks to delineate appropriate vehicle access and parking areas.
- Remove the user-defined campfire ring.
- Add metal campfire ring and bear boxes.
- Add a vault toilet to serve all recreation sites in the vicinity of the Moon Flats area.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site, along with DRS-02 and DRS-03, would be part of the larger Moon Flats Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets, to further reduce ecological impacts on the creek, while still maintaining recreational opportunities. Adding barrier rocks to individual sites would delineate appropriate visitor use areas at DRS-02A and help confine potential impacts to these areas. Adding metal campfire rings, bear boxes and a vault toilet would enhance the overall recreation experience and address sanitation issues at the site. Formalizing this site and adding amenities would add overnight capacity and increase use from low to high.



DRS-02A - Photo 1.



DRS-02A - Photo 2.



DRS-02A - Photo 3.

Site Number Under Proposed Action Restoration Plan: DRS-02.

Site Name Under Alternative 1 Restoration Plan: Moon Flats Sites 3, 4, and 5.

Size: Large

Area of Impact: The approximate area of impact of DRS-02 is 4,253 ft².

Site Description: This recreation site is located at RM 3.2 and is 2.4 miles along Sullivan Lake Road. The site, along with DRS-03, is commonly called Moon Flats. There are three distinct use areas along the internal access road that parallels Sullivan Lake Road. The internal non-forest system access route first passes DRS-02A, then DRS-02, and finally dead-ends at DRS-03. The primary use areas are located on large, flat terrace adjacent to a steep slope that leads to Sullivan Creek. Each use area has an existing user-defined campfire ring. Several user-defined trails provide access from the upper use areas to a lower terrace along the creek. Visitors have also created a walk-in use area on this lower terrace with at least one identified user-defined campfire ring and space for one or more tents. DRS-02 is a popular site for large RVs because of the easy parking access.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: Since DRS-02 and its associated use areas are located on a high terrace out of the floodplain of Sullivan Creek, riparian habitat issues are limited. However, use areas have increased in size due to large groups and poorly defined site margins. Larger areas of trampled vegetation and exposed and compacted soil are present along and adjacent to the internal road corridor. In the absence of intervention, further site creep, tree damage and erosion is likely. There are also sanitation issues at the site (a primitive toilet was observed at this site during the October 2014 field visit).

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Maintain three sites that would be part of the larger Moon Flats Site group.
- Add barrier rocks to better delineate appropriate parking areas.
- Iceberging to focus camping in select locations, in particular away from the streambank, and to minimize site creep.
- Remove user-defined campfire rings.
- Add bear boxes and metal campfire rings at each of the three sites.
- Define access to site by adding vehicle pull-outs.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: In the fall of 2017, this site was used as a construction staging area for bank improvements downstream to protect

Sullivan Lake Road. While not anticipated, this site may be a staging area and access point for construction of ELJs and LWD placement. Should this occur, DRS improvements and habitat restoration in Sullivan Creek would be sequenced to minimize impacts to DRS and site conditions restored.

Anticipated Outcome: This site, along with DRS-02A and DRS-03, would be part of the larger Moon Flats Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets, to further reduce ecological impacts on the creek, while still maintaining recreational opportunities. Similar to DRS-02A, delineating the parking areas with barrier rocks would help confine vehicle use at this site and minimize site creep, overall slightly reducing the use area. Adding bear boxes would facilitate visitor safety and enhance the overall recreation experience. Following treatment site capacity would be comparable. Overall site use would continue to be high following improvements, which include the addition of a vault toilet.



DRS-02 - Photo 1.

DRS-02 – Photo 2.





DRS-02 - Photo 3.

DRS-02 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-03.

Site Name Under Alternative 1 Restoration Plan: Moon Flats Site 6.

Size: Medium

Area of Impact: The approximate area of impact of DRS-03 is 7,375 ft².

Site Description: This recreation site is accessed off Sullivan Lake Road at mile 2.4 (same access as DRS-02). It is located where an internal non-forest system access route through DRS-02 dead-ends at a relatively flat, forested terrace above Sullivan Creek. Groups using DRS-02 sometimes block access to this site. This site is part of the Moon Flats site complex. There is one user-defined campfire ring at the site. Several user-defined trails provide access from the site downslope to the creek.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: This site contains large areas of bare soil with little to no understory vegetation. Soils throughout the site are compacted from vehicle and foot traffic. Some of the trees are damaged and have exposed roots from visitor use. Impacts (trampled vegetation, exposed soil, etc.) are expanding into adjacent areas including streamside vegetation.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Maintain one site as part of the larger Moon Flats Site group.
- Add barrier rocks to better delineate appropriate parking and camping areas.
- Formalize access to the creek near the streambank.
- Create a vehicle turn-around.
- Light iceberg (no digging due to the presence of large trees and exposed roots) to pull use away from the steep slope to the creek.
- Remove the user-defined campfire rings.
- Add a bear box and metal campfire ring.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site, along with DRS-02A and DRS-02, would be part of the larger Moon Flats Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets, to further reduce ecological impacts on the creek, while still maintaining recreational opportunities. Delineating the parking area

with barrier rocks would help confine vehicle use and keep vehicles away from the trees (and exposed roots) and steep slopes at this site. The light iceberging would help vegetation reestablish along the top of the steep slope to the creek. Adding a bear box and fire ring would facilitate visitor safety and enhance the overall recreation experience. At-one-time visitor capacity and overall use of the site would likely not change because of the proposed restoration measures.





DRS-03 - Photo 3.

DRS-03 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-04.

Site Name Under Alternative 1 Restoration Plan: None (day use only).

Size: Small

Area of Impact: The approximate area of impact of DRS-04 is 2,515 ft².

Site Description: This recreation site is located at RM 3.66 and 2.8 miles along Sullivan Lake Road. There is a small pull-out within the forest on the left-hand side of the internal non-forest system access route at this site immediately after turning off Sullivan Lake Road. The internal access road continues to a small bench along Sullivan Creek with three small use areas. The internal non-forest system access route is approximately 800 feet long, and is steep and rutted in places with trees and shrubs encroaching in several places.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: The three small use areas at the end of the internal access road at this site are located along the Sullivan Creek streambank and display trampled vegetation, exposed and compacted soil, and streambank erosion that is likely contributing sediment to the creek. The inaccessibility (due to the poor condition of the internal access road) of these use areas also poses a public safety risk as the site tends to be difficult to access for monitoring and enforcement purposes. A long-term encampment with a large amount of garage was observed during one field visit. At the small pullout area near Sullivan Lake Road, habitat issues are minor although there is some vegetation loss and exposed soil.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to close the internal road just beyond the small pull-out.
- Rip and revegetate the road for 100 feet beyond the barrier, while maintaining a walking access path down to Sullivan Creek.
- Create a j-hook style vehicle turnaround.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Closing the internal road would reduce erosion and allow riparian vegetation to become re-established. Currently, the road is nearly impassable, and thus total capacity of this site would not be reduced by the proposed treatments. Day use would remain and is expected to remain low. Road ripping would discourage

re-establishment of encampment and reduce garbage dumping, and overall reduce impacts to the stream.





DRS-04 – Photo 1.

DRS-04 – Photo 2.

Site Number Under Proposed Action Restoration Plan: DRS-05/USFS 01.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 1.

Size: Large (combination of both use areas at this site)

Area of Impact: The approximate area of impact of DRS-05 is 11,410 ft².

Site Description: This recreation site is located at RM 6.18 and 0.3 mile along Sullivan Creek Road. The site contains two distinct use areas, an upper use area near Sullivan Creek Road, and a lower use area on the banks of Sullivan Creek. The upper use area has a user-defined campfire ring and a metal bear box. The lower use area is accessed via an internal road and has a user-defined campfire ring. Forest Spur Road 2200231 provides access from the lower use area to Sullivan Creek.

Use: High. Overnight and day use both occur at the upper portion of the site. The lower site provides access to the creek primarily for day use and angling.

Habitat Issues/Concerns: Recreation has caused vegetation trampling and loss, and exposed soil and compaction at both the upper and lower use areas of this site. The road surface and user-defined creek access trail at the lower use area also displays erosion and are contributing sediment to the creek.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to delineate parking/vehicle access at the upper use area.
- Remove the user-defined campfire rings.
- Move the location of the existing bear box at the upper use area and add a metal campfire ring.
- Use barrier rocks to close 2200231 to the lower use area.
- Rip and revegetate the 2200231 and lower use area.
- Retain pedestrian access from the upper use area to the lower use area and creek. This access would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: Use of this site for stream restoration access and staging is not anticipated.

Anticipated Outcome: The forest habitat at the upper use area would improve over time by restricting vehicle access at the site to appropriate areas away from trees and their root systems. Closing vehicle access to the lower use area would reduce erosion and sedimentation caused by motorized vehicles. Revegetating the internal access road

and lower use area would improve habitat and the aesthetics of the area. Since the lower use area would be closed to vehicle use, it is less likely to continue to be used for overnight purposes, although some users at the upper site may use it as a walk-in tent site. Closure of the road would not reduce the total capacity of the site since the size of the designated parking and turn-around area would be increased. The site would still be considered large and would accommodate several cars and at least one RV. Postrestoration, this site would still provide access to the stream, and therefore, use levels would continue to be high.



DRS-05 - Photo 3.

DRS-05 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-06.

Site Name Under Alternative 1 Restoration Plan: None (day use only).

Size: Small

Area of Impact: The approximate area of impact of DRS-06 is 4,240 ft².

Site Description: This recreation site is located at RM 6.93 and 1.0 mile along Sullivan Creek Road. It is a small site adjacent to the road in the Sullivan Creek riparian zone, with parking only available on the road shoulder and at a small pull off on the north side of the road. There is a user-defined campfire ring and trail.

Use: Low. Day use only (USFS previously closed this site to overnight use).

Habitat Issues/Concerns: The USFS previously placed iceberg rock and closed the portion of the site adjacent to the creek to overnight use. New vegetation has become established in iceberged areas. While use is low at this site, the presence of the campfire ring may indicate that visitors still use the site for overnight camping, despite the closure, and that it may be susceptible to future impacts (vegetation trampling, tree damage, soil compaction, etc.) from site expansion.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Maintain closure to overnight camping.
- Iceberg additional area around the perimeter to maintain site closure.
- Remove the user-defined campfire ring.
- Maintain pedestrian access to the creek. This access would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

The site would remain day use only.

Associated Sullivan Creek Restoration Actions: No instream restoration is planned for this site because it is already on a trajectory toward recovery and it is directly upstream of a bridge.

Anticipated Outcome: The proposed restoration treatments would limit future recreation-related habitat degradation at this site. These actions are unlikely to result in changes to overall recreation use.



DRS-06 - Photo 1.

DRS-06 – Photo 2.

Site Number Under Proposed Action Restoration Plan: DRS-07/USFS 03.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 2.

Size: Small

Area of Impact: The approximate area of impact of DRS-07 is 9,225 ft².

Site Description: This recreation site is located at RM 7.15 and 1.2 miles along Sullivan Creek Road. An approximately 120-foot-long internal non-forest system access route leads from Sullivan Creek Road to the primary use area at this site. The primary use area sits on a forested bench above Sullivan Creek. There is a user-defined campfire ring and a metal bear box at the site. Several user-defined trails radiate from the primary use area and provide pedestrian access to Sullivan Creek.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: The USFS previously placed barrier rocks to delineate parking at this site. However, the primary use area at this site exhibits typical overuse characteristics including trampled vegetation, vegetation loss and tree damage, and exposed and compacted soil. Furthermore, user-defined creek access trails have proliferated at this site.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Add additional barrier rocks to further delineate parking.
- Iceberg along the periphery of the site closest to the creek.
- Maintain the existing bear box and add a metal campfire ring.
- Add slash to block access for off-road vehicles.
- Maintain pedestrian access to the creek. This access would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The additional barrier rocks would help confine vehicle use to appropriate areas at this site. The iceberging would limit site creep and help areas along the bank of Sullivan Creek to revegetate. Overall, the restoration treatments would improve habitat conditions. The improved habitat and aesthetic conditions at the site may enhance the recreation experience for some visitors. Capacity and recreation use levels are unlikely to change due to the restoration treatments at this site.



DRS-07 - Photo 1.

DRS-07 – Photo 2.



DRS-07 - Photo 3.

DRS-07 – Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-08/USFS 04.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 3 and 3A.

Size: Small

Area of Impact: The approximate area of impact of DRS-08 is 3,720 ft².

Site Description: This recreation site is located at RM 7.24 and 1.3 miles along Sullivan Creek Road. It is on the north side of Sullivan Creek Road and thus does not provide direct impacts to the creek. There is a user-defined campfire ring and a metal bear box at this site. Two user-defined trails lead from the bear box to Sullivan Creek Road. Near the entrance to this site, there is a small pull-out with a single vault toilet. The restroom is intended to be used by all nearby visitors, not just those staying at DRS-08.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: The user-defined trails between this site and Sullivan Creek Road may induce higher levels of use on these trails, including motorized use, but otherwise habitat issues are minor at this site.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Add an additional campsite near the existing vault toilet.
- Add barrier rocks to limit vehicular use of the user-defined trails between the bear box and Sullivan Creek Road.
- Remove the existing user-defined campfire ring and install a new metal campfire ring.
- Add fire ring and bear box at site 3A.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The addition of barrier rocks at the Sullivan Creek Road terminus of the user-defined trails would limit potential disturbance from vehicle use of these trails. The addition of the site near the vault toilet would change capacity from small to medium. However, these actions would not change the overall use level at this recreation site as it currently high, and would remain high.



DRS-08 - Photo 1.

DRS-08 - Photo 2.



DRS-08 – Photo 3.

DRS-08 – Photo 4 (nearby vault toilet).

Site Number Under Proposed Action Restoration Plan: DRS-09/USFS 05.

Site Name Under Alternative 1 Restoration Plan: None (closed).

Size: Large, based on the availability of parking along road (6 to 8 vehicles can park along the road adjacent to this site)

Area of Impact: The approximate area of impact of DRS-09 is 2,050 ft².

Site Description: This recreation site is located at RM 7.33 and 1.5 miles along Sullivan Creek Road. The USFS previously placed barrier rocks and barriers at the entrance to this site to prevent driving into the site and onto the adjacent gravel bar, so parking is only available on a widened shoulder of Sullivan Creek Road. The river deposited cobble and gravel bar provide pedestrian access to the primary use area at this recreation site. The primary use area is on low floodplain adjacent to Sullivan Creek and currently has one user-defined campfire ring. Breaks in the streambank vegetation allow direct visitor access from the use area to Sullivan Creek.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: The primary use area of this recreation site is located in the stream overflow channel and which floods seasonally. Furthermore, visitor use has resulted in vegetation loss and soil compaction along the streambank. These impacts contribute to sedimentation. Additionally, this site was filled with trash and other camping debris during the October 2014 field visit (see photos).

Alternative 1 Site Treatment: The proposed action is to close this site by completing the following actions:

- Add additional barrier rocks to further prohibit access and parking.
- Rip and revegetate the access road.
- Remove the user-defined campfire ring.
- Iceberg the primary use area.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Given the location of this site within the active channel migration zone, the proposed closure of this site would improve riparian functions and creek habitat by limiting recreation-related impacts.



DRS-09 - Photo 3.

DRS-09 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-10/USFS 06.

Site Name Under Alternative 1 Restoration Plan: None (closed).

Size: Medium

Area of Impact: The approximate area of impact of DRS-10 is 14,540 ft².

Site Description: This recreation site is located at RM 7.43 and 1.6 miles along Sullivan Creek Road. It sits directly on the forested streambank of Sullivan Creek. The site includes one primary use area and site creep into two additional lobes. Each lobe has a user-defined campfire ring and space for parking (vehicle, RVs, etc.) and/or tents.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: This site is located in the floodplain along a dynamic reach of Sullivan Creek, and the channel is migrating into the site. Recreational negative effects are prevalent at this site, despite USFS efforts two control use patterns through the placement of barrier rocks. Vegetation loss, heavy tree damage, and exposed and compacted soil and bank erosion are evident.

Alternative 1 Site Treatment: The proposed action is to close this site by completing the following actions:

- Add additional barrier rocks to further prohibit access.
- Remove the existing user-defined campfire rings.
- Rip areas without mature trees and add iceberg rock to allow the main use area to revegetate naturally.
- Add barrier rocks and slash to further discourage camping.
- Revegetate streambank.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Given the location of this site within the active floodplain and channel migration zone, the proposed closure of this site would improve riparian functions and creek habitat by preventing camping related damage and pollution.





DRS-10 - Photo 1.

DRS-10 – Photo 2.





DRS-10 - Photo 3.

DRS-10 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-11/USFS 07.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 4.

Size: Medium

Area of Impact: The approximate area of impact of DRS-11 is 10,900 ft².

Site Description: This recreation site is located at RM 7.82 and 2 miles along Sullivan Creek Road. The primary use area sits on a relatively flat terrace between Sullivan Creek Road and Sullivan Creek. There are two user-defined campfire rings at this site, and space for two to three tents (or a large RV). User-defined trails provide access from the site to the creek.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: The USFS previously added some barrier rocks to this site to delineate appropriate areas for parking. Despite these efforts, use areas remain undefined and continue to expand into previously vegetated areas. While some ground-level vegetation remains as a buffer along the streambank, much of the site is comprised of compacted soil and damaged trees with exposed roots.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Add additional barrier rocks to delineate parking area.
- Iceberg around the periphery of the current impact area to reduce the size and extent of impacts.
- Remove the existing user-defined campfire rings.
- Add a bear box and metal campfire ring.
- Retain the existing pedestrian access routes to the river (these routes would be designed to direct runoff into the forest rather than down the path and into the creek).
- Revegetate the streambank and restore vegetation along creek access routes.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: LWD placement in the form of several small to medium logjams are planned in this area (known as the Oxbow Side Channel site under the proposed Sullivan Creek LWD Restoration Project). In 2018, ELJs would be constructed upstream with wood delivered to the site. In 2019 or 2020 additional trees with rootwads attached would be selectively felled from the riparian zone to form log jams. Log jams would be designed to reconnect the channel with its floodplain, which would increase habitat for native fish and ground-water recharge. Most

trees selected would be on the north side of the channel and impacts on shading would be minimal.

Anticipated Outcome: The proposed additional barrier rocks to delineate the parking area would keep vehicles from driving farther into the site toward the streambank. This action, along with iceberging to better confine recreation use within a smaller footprint, would help the understory recover throughout this site. Revegetating the streambank would prevent continued erosion and sedimentation and improve riparian habitat. The proposed treatments would slightly reduce the capacity of this site by constraining the area available for parking and camping. Post-restoration, the use area would be reduced from medium to a small. However, total use levels would not change substantially.



DRS-11 - Photo 1.

DRS-11 - Photo 2.



DRS-11 - Photo 3.

DRS-11 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-12/USFS 08.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 5.

Size: Medium

Area of Impact: The approximate area of impact of DRS-12 is 16,170 ft².

Site Description: This recreation site is located at RM 8.05 and 2.1 miles along Sullivan Creek Road. An internal access road from Sullivan Creek Road provides vehicular access to the primary use areas of this site. There are two primary use areas at this site, one near a widened parking area, and a second one adjacent to Sullivan Creek. Both areas are accessible by vehicle, although pedestrian access from the first to the second use area is also possible. Each of the use areas has a user-defined campfire ring. A metal bear box is located near the first use area (closer to Sullivan Creek Road).

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: Both of the primary use areas of this recreation site show signs of ecological degradation. Vegetation has been trampled, and exposed soil delineates the use areas. Much of the riparian vegetation at the second, lower use area has been crushed, and the streambank is eroding in several locations. The lower use area is also prone to flooding.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Install a 35-foot radius vehicle turnaround.
- Use barrier rocks to delineate vehicle turnaround.
- Iceberg and revegetate the main use area (in the active flood zone).
- Remove the user-defined campfire ring near the parking area, and add a metal campfire ring near the primary use area (out of the overflow channel zone).
- Relocate the bear box so it is near the metal campfire ring.
- Maintain pedestrian access from the site to the creek (designed to direct runoff into the forest rather than down the trail and into the creek).
- Revegetate the streambank.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: LWD placement in the form of several small to large logjams are planned in this area (part of the Oxbow Side Channel site under the proposed Sullivan Creek LWD Restoration Project). In 2018, three large ELJs would be constructed immediately downstream of the recreation site. Along with

minor excavation at the inlet, the large logjams would raise channel and water surface elevations and engage the side channel. These log jams would be ground-based machine placed and the site would be used for staging and stream access. In 2019 or 2020 additional trees with rootwads attached would be selectively felled from the riparian zone to form log jams. Most trees selected would be on the north side of the channel and impacts on shading would be minimal. Additional helicopter placements of logs would occur upstream of this recreation site at locations not easily accessible by ground-based equipment or in close proximity to riparian trees of adequate size. Log jams would be designed to reconnect the channel with its floodplain, which would increase habitat for native fish and ground-water recharge.

Anticipated Outcome: The proposed addition of barrier rocks and iceberging to confine recreation use within a smaller footprint away from the creek and revegetation would help recover this site. Revegetating the streambank would prevent continued erosion and sedimentation and improve riparian habitat conditions. The proposed treatments would reduce camping in high impact areas on the streambank and relocate it to more suitable areas. Site capacity would be maintained. Total use levels would not change substantially as a result of the proposed treatments.



DRS-12 – Photo 3.

DRS-12 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-13/USFS 09.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 6.

Size: Medium

Area of Impact: The approximate area of impact of DRS-13 is 8,110 ft².

Site Description: This recreation site is located at RM 8.21 and 2.3 miles along Sullivan Creek Road. It is across Sullivan Creek Road from DRS-14 and a single vault toilet. The site includes two primary use areas that are connected by a user-defined pedestrian path, although vehicles may occasionally use this route. The first use area is within and adjacent to a widened and cleared parking area, with a user-defined campfire ring. The second use area is closer to Sullivan Creek and currently has a user-defined campfire ring and a metal bear box. User-defined trails continue from this second use area to Sullivan Creek.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: The first use area is largely clear of vegetation, as it is the end of a short spur road that provides access to this recreation site. The soil is compacted in this area from vehicular and pedestrian use. The second use area is located with the floodplain of Sullivan creek and is characterized by soil compaction, vegetation impacts, erosion, and site expansion toward the stream.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Install 35-foot radius turnaround.
- Use barrier rocks to delineate vehicle turnaround.
- Iceberg the current use area (in the flood-prone area).
- Rip (avoiding mature trees) the old road leading from the upper site.
- Remove the user-defined campfire ring and add a metal campfire ring.
- Relocate the bear box so it is near the metal campfire ring.
- Maintain pedestrian access from the site to the creek. This path would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Similar to proposed treatments at other recreation sites in the Sullivan Creek region, the proposed addition of barrier rocks and iceberging would better confine recreation use within a smaller footprint, and would help the understory recover throughout this site. The proposed treatments would close the lower camping area (in the flood-prone area). However, the addition of the large parking/turnaround area, as well as the delineation of additional tent sites, would maintain the capacity of the site. Total use levels are would not change substantially as a result of the proposed treatments.



DRS-13 - Photo 1.

DRS-13 - Photo 2.



DRS-13 - Photo 3.

DRS-13 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-14/USFS 10.

Site Name Under Alternative 1 Restoration Plan: Conto Gulch Sites 1–6.

Size: Large

Area of Impact: The approximate area of impact of DRS-14 is 8,285 ft².

Site Description: This recreation site is across from DRS-13 at RM 8.15 and 2.31 miles along Sullivan Creek Road. It is on the opposite side of the road and so provides little direct impact to the creek. The site is on a short non-forest system spur route that at one time likely functioned as a pull-through. One end of the road has been blocked, making the site difficult to access for monitoring or enforcement purposes. The area is flat and partially delineated by a steep slope along the western and southern periphery of the site. There are two user-defined campfire rings, a metal bear box, and several user-defined trails that lead upslope from the site. There is a single vault toilet and large bulletin board near the entrance to this recreation site. The vault toilet is intended to serve all nearby visitors, not just those at this site.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: There are only minor habitat concerns at this site, stemming primarily from potential site creep (the tendency for the area of impact at a site to expand over time from use).

Alternative 1 Site Treatment: The proposed restoration treatments at this site include the following:

- Add five new sites along the spur road to create the larger Conto Gulch Site group.
- Clear vegetation and provide light grading along the closed portion of the existing spur road such that it again functions as a pull-through off of Sullivan Creek Road.
- Provide an appropriate parking area, metal campfire ring, and bear box at each site.
- Add barrier rocks to better define and delineate appropriate use areas at all existing and new use areas.
- Remove the existing user-defined campfire rings.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site would be expanded to create the larger Conto Gulch Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets. Because this site is on the opposite side of Sullivan Creek Road, and away from the stream, it provides an opportunity for site expansion while avoiding impacts in the stream. Pedestrian access from the Conto Gulch Site to Sullivan Creek would be provided to maintain recreational use levels. The proposed addition of barrier rocks at this site would minimize the potential for future site creep. While the size of each delineated use area at DRS-14 would be small, the site would retain its functionality as a large site since it may be used by individual small groups (i.e., one group per delineated area) or by larger groups (i.e., one large group spread out over the five new delineated use areas). As such, changes to capacity and recreation use levels are currently high and would continue to remain high, post-restoration. Due to the increase in sites, and increase in capacity would occur.



DRS-14 - Photo 1.

DRS-14 - Photo 2.



DRS-14 - Photo 3.

DRS-14 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-15/USFS 11.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 7.

Size: Small

Area of Impact: The approximate area of impact of DRS-15 is 2,635 ft².

Site Description: This recreation site is located at RM 8.37 and 2.4 miles along Sullivan Creek Road. It is on the north side of Sullivan Creek Road and thus does not provide direct impacts to the creek. The small site currently has a user-defined campfire ring.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: The USFS previously placed barrier rocks and boulders to focus recreation use at this site. However, there are continued minor habitat concerns at this site stemming primarily from potential site creep.

Proposed Action Under the Alternative 1 Restoration Plan: The proposed restoration treatments at this site include the following:

- Add barrier rocks to better define and delineate appropriate use areas.
- Remove the existing user-defined campfire ring.
- Add a metal campfire ring and bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The proposed addition of barrier rocks at this site would minimize the potential for future site creep. Capacity and recreation use levels would not change because of the proposed restoration treatments at this site.



DRS-15 – Photo 1.

DRS-15 – Photo 2.



DRS-15 - Photo 3.

DRS-15 – Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-16/USFS 12.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 8.

Size: Small

Area of Impact: The approximate area of impact of DRS-16 is 2,090 ft².

Site Description: This recreation site is located at RM 8.6 and 2.8 miles along Sullivan Creek Road. It is on the north side of Sullivan Creek Road across from DRS-17 and thus does not directly impact the creek. The small site currently has a user-defined campfire ring.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: Habitat concerns at this site are minor, stemming primarily from potential site creep.

Alternative 1 Site Treatment: The proposed restoration treatments at this site include the following:

- Add barrier rocks to better define and delineate appropriate use areas.
- Remove the existing user-defined campfire ring and install a metal campfire ring.
- Add a bear box to the site.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The proposed addition of barrier rocks at this site would minimize the potential for future site creep. Providing a bear box would foster appropriate visitor behavior and promote visitor safety. Changes to capacity and recreation use levels would not occur as a result of implementing the proposed treatments at this site.



DRS-16 - Photo 1.

DRS-16 - Photo 2.



DRS-16 - Photo 3.

DRS-16 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-17/USFS 13.

Site Name Under Alternative 1 Restoration Plan: None (closed).

Size: Large

Area of Impact: The approximate area of impact of DRS-17 is 16,670 ft².

Site Description: This recreation site is located at RM 8.69 and 2.81 miles along Sullivan Creek Road. The large, slightly undulating site sits in a side-channel swale in the floodplain of Sullivan Creek. The primary use areas are concentrated near a central parking area and radiate to the banks of Sullivan Creek to the east and west/southwest. There are four user-defined campfire rings and a metal bear box at this site. Several user-defined trails provide access from the primary use areas to Sullivan Creek.

Use: High. Overnight and day use both occur.

Habitat Issues/ConcernsDRS-17 is located in the floodplain and channel migration zone of Sullivan Creek. Soil compaction and tree damage is widespread. The site is marked by large contiguous areas with little to no understory vegetation and exposed soil. The streambank at this site is eroded at several locations.

Proposed Action Under the Alternative 1 Restoration Plan: The proposed action is to close this site by completing the following actions:

- Add barrier rock at Sullivan Creek Road to prevent vehicle access to site.
- Remove all user defined fire rings and the bear box from site.

Associated Sullivan Creek Restoration Actions: Several small to medium logjams are planned at this site (known as the DRS 17 Side Channel site under the proposed Sullivan Creek LWD Restoration Project). In 2018, three medium engineered logjams would be placed at this site. Log placement and excavation of a starter channel through the flood-prone area would re-establish a relic side channel through the site. In 2019 or 2020 additional trees with rootwads attached would be selectively felled from the riparian zone to form log jams within the newly formed side channel. Additional helicopter-placement of wood would occur primarily downstream of the recreation site to further increase pool abundance and habitat complexity. The site would be used for staging for the machine placed wood and riparian thinning, as well as access to the creek.

Anticipated Outcome: Site closure would reduce recreation capacity and use, but allow for implementation of a substantial restoration project that would benefit native fish habitat as well as limit recreation-related effects. This would ultimately enhance the recreation experience by providing a higher quality recreational experience throughout the Sullivan Creek region.



DRS-17 - Photo 1.

DRS-17 – Photo 2.



DRS-17 - Photo 3.

DRS-17 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-18.

Site Name Under Alternative 1 Restoration Plan: None (day use only).

Size: Small

Area of Impact: The approximate area of impact of DRS-18 is 420 ft².

Site Description: This recreation site is located at RM 8.87 between DRS-17 and DRS-19. DRS-18 consists of a small parking area along the shoulder of Sullivan Creek Road and a user-defined trail from the road to the creek. There is very little distance between the road and Sullivan Creek at this location. Both the site and the road at this location are within the floodplain and are vulnerable to flooding. The site has been closed to overnight use, and there is little evidence that it is used currently.

Use: Low. Day use only.

Habitat Issues/Concerns: The USFS previously completed restoration treatments, including boulder placement and iceberging. Given the success of these previous restoration treatments, habitat concerns at this recreation site are minimal.

Alternative 1 Site Treatment: The proposed restoration action at this site includes adding barrier rocks to better limit vehicle access into the riparian zone of Sullivan Creek and ensure that the re-establishment of native vegetation is not disrupted

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The previous restoration treatments at this site have reduced recreation-related site degradation and improved habitat conditions. The addition of more barrier rocks would reinforce these previous restoration treatments and improve riparian functions and creek habitat by preventing camping related damage and pollution. The site would remain day use only, and no changes to capacity and/or use levels are anticipated.



DRS-18 - Photo 1.

DRS-18 – Photo 2.



DRS-18 – Photo 3.

DRS-18 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-19/USFS 14.

Site Name Under Alternative 1 Restoration Plan: None (day use only).

Size: Small

Area of Impact: The approximate area of impact of DRS-19 is 4,065 ft².

Site Description: This recreation site is located at RM 8.91 and 3 miles along Sullivan Creek Road. Similar to DRS-18, there is very little distance between the road and Sullivan Creek at this location. Both the site and the road at this location are within the floodplain and are vulnerable to flooding. Parking is limited to the shoulder of Sullivan Creek Road. There is a user-define campfire ring and a well-worn area of bare soil.

Use: Low. Primarily day use with evidence of occasional overnight use.

Habitat Issues/Concerns: This small recreation site in the floodplain directly adjacent to Sullivan Creek lacks understory and riparian vegetation along the streambank. Soils are exposed, compacted, and eroding along the streambank.

Alternative 1 Site Treatment: The proposed action is to close this site to overnight use and make it day use only. This would be accomplished by implementing the following actions:

- Use barrier rocks along Sullivan Creek Road to prevent vehicle access to the site (parking would be allowed along the shoulder).
- Iceberg the site to promote natural revegetation.
- Remove the existing user-defined campfire ring.
- Revegetate the streambank.
- Maintain pedestrian access from Sullivan Creek Road to the creek. This path
 would be designed to direct runoff into the forest rather than down the path and
 into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Given the location of this site within the active floodplain and channel migration zone, the proposed closure of this site would improve riparian functions and creek habitat by preventing camping related damage and pollution, while retaining lower impact day use activities (i.e., fishing access, picnicking)

Given that this is a marginal camping site with low use, the impact on recreational users of this modification is small.



DRS-19 - Photo 1.

DRS-19 – Photo 2.



DRS-19 - Photo 3.

DRS-19 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-20/USFS 15.

Site Name Under Alternative 1 Restoration Plan: John's Creek Site Group (1–6).

Size: Medium

Area of Impact: The approximate area of impact of DRS-20 is 6,970 ft².

Site Description: This recreation site is located at RM 8.99 and 3.1 miles along Sullivan Creek Road. It is on the north side of Sullivan Creek Road and thus does not provide direct impacts on the creek. Creek access for day use directly across the road from the site. The site currently has a user-defined campfire ring. There is a single vault toilet nearby (immediately east along Sullivan Creek Road).

Use: Moderate. Overnight and day use both occur.

Habitat Issues/Concerns: Habitat concerns at this site are minor, stemming primarily from potential site creep.

Alternative 1 Site Treatment: The proposed restoration treatments at this site include the following:

- Add five new sites (including existing USFS Site 16) to create the larger John's Creek Site group.
- Clear vegetation and lightly grade to create an access road connecting the existing vault toilet to the sites to the east.
- Add barrier rocks to better define and delineate appropriate use areas.
- Remove the existing user-defined campfire ring and replace with metal campfire rings.
- Add bear boxes to the site.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site would be expanded to create the larger John's Creek Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets. Because this site is on the opposite side of Sullivan Creek Road, and away from the stream, it provides an opportunity for site expansion while avoiding impacts in the stream. Pedestrian access from the John's Creek Site to the stream and day use areas would be provided to maintain recreational use levels. Site expansion would provide additional camping opportunities and address sanitation issues associated with camping along Sullivan Creek by concentrating use closer to vault toilets. Providing metal campfire rings and bear boxes at each site would foster

appropriate visitor behavior and promote visitor safety, while the addition of barrier rocks would minimize the potential for future site creep. The addition of the new camping areas would increase site capacity from medium to large.

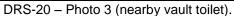




DRS-20 - Photo 1.

DRS-20 - Photo 2.







DRS-20 - Photo 4 (nearby vault toilet).

Site Number Under Proposed Action Restoration Plan: DRS-21/USFS 17.

Site Name Under Alternative 1 Restoration Plan: None (day use only).

Size: Small

Area of Impact: The approximate area of impact of DRS-21 is 3,810 ft².

Site Description: This recreation site is located at RM 9.01 and 3.1 miles along Sullivan Creek Road in the floodplain immediately to the east of the intersection with John's Creek Road (USFS Road 2200). The site has a user-defined campfire ring and flat area for camping along the bank to Sullivan Creek

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: The USFS previously placed barrier rocks at the site to try to focus recreation use and prevent vehicle access along the streambank. However, the barrier rocks continue to be breached and the site has expanded. It continues to display heavy recreation-related effects including a lack of understory vegetation, trampled riparian vegetation, exposed and compacted soil, and areas of erosion along the streambank. Sullivan Creek migrating into the site.

Alternative 1 Site Treatment: The proposed action is to close this site to overnight use and make it day use only. This would be accomplished by implementing the following actions:

- Add an additional row of barrier rocks along Sullivan Creek Road to prevent vehicle access to the site, while maintaining parking along the shoulder for day use.
- Remove the existing user-defined campfire ring.
- Iceberg the site to promote natural revegetation.
- Revegetate the streambank.
- Maintain pedestrian access from Sullivan Creek Road and the Johns Creek site group to the creek. This path would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Closing this site to overnight use would limit adverse effects to the floodplain through and restore riparian functions and habitat, while retaining day use for the Johns Creek Site group. Use levels are high and are anticipated to remain moderate to high.



DRS-21 - Photo 1.

DRS-21 – Photo 2.



DRS-21 - Photo 3.

DRS-21 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-21A.

This site was presented as individually as a proposed new site under the Proposed Action Restoration Plan. In the Alternative 1 Restoration Plan, this site is presented as John's Creek 3, part of the John's Creek Site group. Please see DRS-20 above for more information.

Dispersed Recreation Site 22

Site Number Under Proposed Action Restoration Plan: DRS-22/USFS 18.

Site Name Under Alternative 1 Restoration Plan: None (closed).

Size: Small

Area of Impact: The approximate area of impact of DRS-22 is 1,060 ft².

Site Description: This recreation site is across Sullivan Creek from DRS-21 at RM 3.1 and about 9.03 miles along Sullivan Creek Road. It is accessed by crossing a bridge over Sullivan Creek from USFS Road 2200500. The site sits on a small, flat bench on the left bank of Sullivan Creek and currently has a user-defined campfire ring and user-defined trails from the site to the creek.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: The USFS previously placed barrier rocks along the road entrance at this site. While this restoration action has prevented vehicles from accessing the site, recreational use has continued to degrade the site. Understory vegetation is limited, and the riparian vegetation has been trampled where visitors access the creek. Soil is exposed and compacted, and eroding along the streambank.

Alternative 1 Site Treatment: The proposed action is to close this site to all recreational use. This would be accomplished by implementing the following actions:

- Maintain existing barrier rocks and add others along USFS Road 2200500 to prevent access to the site.
- Iceberg to promote natural revegetation.
- Remove the existing user-defined campfire ring.
- Revegetate along the damaged streambank.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Because the majority of the site is located within the floodplain, closing this site to recreational use would restore riparian habitat and functions. Site closure would reduce recreation capacity and use, which is already low at this site



DRS-22 - Photo 1.

DRS-22 – Photo 2.



DRS-22 - Photo 3.

DRS-22 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-23/USFS 19.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 9.

Size: Large

Area of Impact: The approximate area of impact of DRS-23 is 18,400 ft².

Site Description: This recreation site is located at RM 8.94. It is accessed via the USFS Road 2200505 off Sullivan Creek Road around mile 8.94. The site makes use of an old spur road and other cleared areas (likely used as staging areas for assorted logging and development actions within the National Forest) to provide a large, flat, and mostly open dispersed use setting. The spur road was also recently used (2017) for fire suppression and to remove the John's Creek culvert. A portion of the site is within the forested area between the cleared areas and Sullivan Creek. There are two user-defined campfire rings and a metal bear box at the site. There are also user-defined trails leading from the site to the creek. Given the large size and privacy, it often used by groups.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: Since this recreation site is outside the floodplain and away from Sullivan Creek, potential creek-related habitat concerns are minor. Given the relatively high level of use and low visibility, site creep and related effects (e.g., vegetation loss, soil exposure, etc.) could be a problem in the future.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to better delineate parking and use areas.
- Iceberg the western use area while maintaining a walking path.
- Rip and replant the spur road to adequately block vehicle use, while retaining a vehicle turn-around.
- If planting of the spur road does not adequately block vehicle traffic, an earthen berm may be installed to further deter vehicle use.
- Close the unofficial loop road with boulders and slash.
- Remove the existing user-defined campfire rings.
- Add a metal campfire ring and maintain the bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The proposed addition of barrier rocks at this site would minimize the potential for future site creep. Ripping and replanting the spur road would improve habitat and aesthetic conditions at the site. The proposed treatments would reduce the capacity of the site by constraining the area available for parking and camping. Thus, the capacity of the site would change from large to medium. However, total use levels would not occur.



DRS-23 - Photo 1.

DRS-23 - Photo 2.



DRS-23 - Photo 3.

DRS-23 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-24/USFS 20.

Site Name Under Alternative 1 Restoration Plan: None (closed).

Size: Small

Area of Impact: The approximate area of impact of DRS-24 is 8,910 ft².

Site Description: This recreation site is located at RM 9.09 and 3.2 miles along Sullivan Creek Road. A short spur road provides access to the primary use area at this site, which is within an active side channel of Sullivan Creek. A log jam formed upstream during a 2001 flood that aggraded the channel and formed a side channel, isolating the former camping area. As such, a portion of the site is inundated and unusable and the USFS closed the site. There is a user-defined campfire ring and user-defined access to Sullivan Creek at this site. Parking is only available along the shoulder of Sullivan Creek Road.

Use: Low. Day use only (the USFS previously closed this site to overnight use).

Habitat Issues/Concerns: The USFS previously blocked vehicular access to this site by placing barrier rocks and boulders at the entrance and prohibiting overnight use. The understory vegetation at this site and along the now closed access road is recovering. As noted previously, a side channel of Sullivan Creek cuts through the site and is within the larger active CMZ.

Alternative 1 Site Treatment: The proposed restoration action is to reinforce the closure of this recreation site. The actions here include the following:

- Add additional barrier rocks along Sullivan Creek Road.
- Rip and plant existing access road.
- Remove the existing user-defined campfire ring.
- Create an earthen berm and trench to further restrict vehicle access.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Closing this site to recreational use would limit site degradation, allow for recovery, and restore habitat within the floodplain and channel migration zone. While this site was previously closed to overnight use (and already largely inaccessible), proposed site treatments would reinforce the closure. Recreational use is already low at this site and no change in use would occur.



DRS-24 – Photo 3.

DRS-24 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-25/USFS 21.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 10.

Size: Large

Area of Impact: The approximate area of impact of DRS-25 is 11,960 ft².

Site Description: This recreation site is located at RM 9.32 and 3.3 miles along Sullivan Creek Road. A short access road provides vehicular access from Sullivan Creek Road to the primary use area at this site. The site lies along a large, relatively flat area along Sullivan Creek. There are two user-defined campfire rings, and multiple locations are likely used for camping (either to pitch a tent or park a trailer/RV). User-defined trails from the main use area provide access to Sullivan Creek.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: This site contains large areas of bare soil with little to no understory vegetation in the primary area of use. Soils throughout the site are compacted from vehicle and foot traffic. Several trees are damaged and many have exposed roots due to soil loss and compaction from recreation use. Bank erosion is prevalent where visitors access the creek.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to delineate the parking and turnaround area, as well as prohibit off-highway vehicle access to the site along Sullivan Creek Road.
- Iceberg around the periphery of the current impact area (to reduce the size and extent of impacts).
- Remove the four user-defined campfire rings.
- Add a metal campfire ring and bear box in the primary use area.
- Maintain pedestrian access from the site to the creek and forest. This access would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration anticipated in the vicinity of this site.

Anticipated Outcome: Adding barrier rocks and iceberging would define recreation use within a smaller footprint and would help the understory recover throughout this site, as well as along the streambank. The restored habitat and associated aesthetic improvements may enhance the recreation experience for some visitors. The proposed

treatments would reduce the capacity of this site by constraining the area available for parking and camping. Thus, the capacity of the site would change from large to medium. However, total use levels would not change substantially as a result of the proposed treatments (i.e., the site is currently very popular and is anticipated to remain popular post implementation).



DRS-25 - Photo 1.

DRS-25 - Photo 2.



DRS-25 – Photo 3.

DRS-25 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-26/USFS 23.

Site Name Under Alternative 1 Restoration Plan: None (closed).

Size: Small

Area of Impact: The approximate area of impact of DRS-26 is 5,760 ft².

Site Description: This recreation site is located at RM 9.78 and 3.8 miles along Sullivan Creek Road. Existing barrier rocks limit vehicular access to the site. There is limited parking along the shoulder of Sullivan Creek Road for visitors. The primary use area is between Sullivan Creek Road and Sullivan Creek. There are two user-defined campfire rings at this site and pedestrian access to the streambank and creek.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: This recreation site may be prone to periodic flooding. Soil is exposed and compacted throughout the site, and there is erosion along the streambank .Sullivan Creek is actively migrating into this site. It is mostly devoid of understory and riparian vegetation. Use areas are on top of an eroding streambank.

Alternative 1 Site Treatment: The proposed action is to fully close this recreation site. Proposed treatments include the following:

- Add barrier rocks to prevent vehicle access.
- Remove the two existing user-defined campfire rings.
- Rip and revegetate the access road.
- Iceberg the primary use area.
- Revegetate the streambank.

Associated Sullivan Creek Restoration Actions: LWD placement in the form of three large ELJs is planned adjacent to this recreation site (part of the Wassan and Cascade Creek Confluences site under the proposed Sullivan Creek LWD Restoration Project). In 2018, three large ELJs will be constructed in this site (one upstream and two downstream) to increase pool area and activate an existing remnant side channel next to the recreation site. The three ELJs will be placed using ground-based machinery and the site will be used for staging and stream access. Log jams would be designed to reconnect the channel with its floodplain, which would increase habitat for native fish and ground-water recharge.

Anticipated Outcome: Site closure would reduce recreation capacity and use, but allow for implementation of a substantial restoration project that would benefit native fish habitat as well as limit recreation-related effects. This would ultimately enhance the recreation experience by providing a higher quality recreational experience throughout the Sullivan Creek region.



DRS-26 - Photo 1.

DRS-26 - Photo 2.



DRS-26 - Photo 3.

DRS-26 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-27/USFS 24.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 11.

Size: Medium

Area of Impact: The approximate area of impact of DRS-27 is 5,495 ft².

Site Description: This recreation site is located at RM 10.04 and 4 miles along Sullivan Creek Road. It is on the western, non-creek side of Sullivan Creek Road, so it does not provide direct impacts to the creek. The site is at the end of a short spur road and surrounded by forest. There is currently a user-defined campfire ring near the end of the spur road. The large, open setting of this site makes it amenable to larger groups.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: Given its location on the non-creek side of Sullivan Creek Road, there are minimal creek habitat-related issues and only minor habitat concerns at this site, stemming primarily from potential site creep.

Alternative 1 Site Treatment: The proposed restoration treatments for this site include the following:

- Add barrier rocks to better define and delineate appropriate use areas.
- Remove the user-defined campfire ring.
- Add a metal campfire ring and bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The proposed addition of barrier rocks at this site would minimize the potential for future site creep. Removing the user-defined campfire ring and adding a bear box and metal campfire ring would promote responsible visitor behavior and visitor safety. Changes to capacity and recreation use levels would not occur as a result of implementing the proposed actions at this site.



DRS-27 - Photo 1.

DRS-27 – Photo 2.

Site Number Under Proposed Action Restoration Plan: DRS-28/USFS 25.

Site Name Under Alternative 1 Restoration Plan: None (closed).

Size: Small

Area of Impact: The approximate area of impact of DRS-28 is 5,100 ft².

Site Description: This recreation site is located at RM 10.25 and 4.3 miles along Sullivan Creek Road in the floodplain. Parking is available along the shoulder of Sullivan Creek Road. The site sits on a small terrace downslope from the road. There is a user-defined campfire ring at the site and user-defined access to the creek. A large log jam adjacent to the site has caused bank erosion and channel migration into the site, and thus the site is no longer suitable for camping. The USFS has placed boulders to block the site to vehicle access. However, users often park on the road and walk in.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: This site floods periodically and there is currently a large log jam in the adjacent creek segment that has resulted in channel migration toward the primary use area. The USFS previously placed barrier rocks at the site entrance to limit vehicle access and focus recreation use. Nonetheless, recreational use has removed understory vegetation and compacted the soil at this site.

Alternative 1 Site Treatment: The proposed action is to fully close this recreation site. The actions for this site include the following:

- Add barrier rock along Sullivan Creek Road.
- Iceberg the primary use area.
- Remove the existing user-defined campfire ring.
- Revegetate the disturbed streambank.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Closing this site to recreational use would limit site degradation, allow for revegetation of exposed soil along the streambank, and prevent camping in an unsuitable and unsafe environment created by channel dynamics. Because of bank erosion into the site, current use is already low. Formal site closure would eliminate this use.



DRS-28 - Photo 1.

DRS-28 - Photo 2.



DRS-28 – Photo 3.

DRS-28 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-28A (this site was one of five new sites created under the Proposed Action Restoration Plan).

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 12.

Size: Small

Area of Impact: The approximate area of impact of DRS-28A is 1,643 ft².

Site Description: The area identified as DRS-28A is between DRS-28 and DRS-29 at RM 11.23 and approximately 5.5 miles along Sullivan Creek Road (note: this site was not included in the original 38 identified DRSs). There is a small (1–2 vehicles) pullout along Sullivan Creek Road where visitors can park and access the area. Visitors access the site via a user-defined trail that leads to several flat areas that provide space for tent camping. Two user-defined trails also provide access to Sullivan Creek. Overnight use at this site is currently prohibited.

Use: Low. Currently day use only, but would facilitate overnight use post-restoration treatments.

Habitat Issues/Concerns: Currently, habitat-related issues and concerns are minimal at this site. Vegetation trampling is limited and primarily focused along the user-defined trails. There is some streambank erosion where one of the user-defined trails accesses Sullivan Creek.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to delineate the pullout along Sullivan Creek Road and limit vehicular access to the site.
- Iceberg to focus camping in select locations to minimize site creep.
- Retain one of the user-defined trails to Sullivan Creek (close the trail that accesses the creek via a steep streambank with signs of erosion).
- Add a metal campfire ring and a bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The proposed treatments at this new recreation site would minimize potential future recreation-related habitat impacts, while enhancing the overall recreation experience along Sullivan Creek. In particular, the addition of DRS-28A would add overnight capacity in a lower impact area to offset lost recreational opportunities at unsuitable locations such as DRS-28.



DRS-28A – Photo 1.



DRS-28A - Photo 3.



DRS-28A - Photo 2.



DRS-28A - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-29/USFS 26.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 13.

Size: Medium

Area of Impact: The approximate area of impact of DRS-29 is 7,240 ft².

Site Description: This recreation site is located at RM 11.38 and 5.4 miles along Sullivan Creek Road. There are two primary use areas associated with this site. This first use area is bound on the west and south by roads (Sullivan Creek Road and USFS Road 2200280) and the east and north by Sullivan Creek. This use area is entirely within the floodplain of Sullivan Creek and directly impacts the stream. The second use area is across a short bridge (Old Pass Creek Bridge) on USFS Road 2200280 (currently closed Maintenance Level 1). Barrier rocks currently prohibit vehicular access to this second use area, but visitors can access the site by foot. The second use area occupies the existing road bed and has a user-defined campfire ring. This road is blocked about 100 feet from the bridge. Bank erosion is evident upstream of the bridge, adjacent to the first use area.

Use: High. Overnight and day use both occur.

Habitat Issues/Concerns: Most of the resource concerns at this recreation site are associated with the first use area. The USFS previously added barrier rocks to focus use at the site, but recreational use has continued to affect the site. Understory vegetation is nonexistent at the site, and there is severe streambank erosion. Since the second use area is within an old road bed (USFS Road 2200280), recreational effects here are negligible.

Alternative 1 Site Treatment: The proposed action is to refocus recreation use at this site away from the streambank and instead encourage use along the roadbed of the former USFS Road 2200280. This would be accomplished by completing the following actions:

- Close the stream-side use area by adding barrier rocks and slash.
- Remove the user-defined campfire ring along the streambank and on opposite (southern) side of bridge.
- Allow vehicles and RVs to continue to park on the western side of the Old Pass Creek Bridge.
- Add barrier rocks at the western end of the Old Pass Creek Bridge to limit vehicle access.
- Maintain pedestrian access across the Old Pass Creek Bridge to the walk-in campsite on the opposite (eastern) side of the creek.

- Add a metal campfire ring and bear box to define the camp area on the eastern side of Old Pass Creek Bridge.
- Remove the closed 2200280 Road from the forest system to allow camping.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The proposed restoration treatments would improve streambank conditions and habitat at this site while protecting recreational resources. While use of the streambank area would be restricted at the high impact area, the capacity and overall use of the site would not change substantially. Visitor use is already focused on the USFS Road 2200280 roadbed and would likely continue in the future.



DRS-29 - Photo 3.

DRS-29 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-30.

Site Name Under Alternative 1 Restoration Plan: None (day use only).

Size: Small

Area of Impact: The approximate area of impact of DRS-30 is 1,210 ft².

Site Description: This day-use only recreation site is located at RM 12.10 and 6 miles along Sullivan Creek Road. Parking for this site is provided along the shoulder of Sullivan Creek Road. The primary use area consists of a user-defined, worn trail down a steep bank from the road to the creek.

Use: Low. Day use only

Habitat Issues/Concerns: The user-defined trail from Sullivan Creek Road to the creek is devoid of understory vegetation. The soil is exposed and eroding in places. The steep trail to the creek likely facilitates run-off and sedimentation of the creek.

Alternative 1 Site Treatment: The following actions are proposed:

- Add barrier rocks to further limit potential vehicle entry to the site.
- Iceberg the steep upper portion of the trail where soil compaction and erosion are worst.
- Retain pedestrian access from the road through the iceberged area to the creek
 to focus recreation use. This path would be designed to direct runoff into the
 forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

The site would remain open for day use only.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The proposed treatments would promote understory growth of the riparian forest (by focusing recreational use along a narrower trail), and curb erosion and sedimentation. The proposed restoration treatments would relocate recreational use outside of the floodplain and improve riparian functions. Use levels would not change as use is currently low, and treatments would not reduce or induce additional use.



DRS-30 – Photo 1.

DRS-30 - Photo 2.

Site Number Under Proposed Action Restoration Plan: DRS-31/USFS 28.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 14.

Size: Large

Area of Impact: The approximate area of impact of DRS-31 is 13,810 ft².

Site Description: This recreation site is located at RM 14.55 and 8.3 miles along Sullivan Creek Road near the mouth of Gypsy Creek. The site includes two use areas, a large upper use area and a smaller, lower use area. The upper use area is an undulated terrace above the creek with several flat areas that are likely used for camping. There is a user-defined campfire ring in the upper use area, as well as several user-defined trails that provide access to the creek. A propane tank and other equipment associated with a fish pit tag array are adjacent to this upper use area. The lower use area is located in the floodplain at the stream confluence and is closed to vehicle access. There is a second user-defined campfire ring in this lower use area and several locations along the creek banks where visitors can access the water.

Use: Moderate. Overnight and day use both occur.

Habitat Issues/Concerns: Both the upper and lower use areas are disturbed by recreation use. The upper use area is devoid of understory vegetation. Exposed and compacted soil delineates the extent of the heaviest used areas along this upper bench. Visitors have also damaged several trees in the upper use area. The road spur to the lower use area is eroded. It is blocked to vehicle access by boulders. Periodically the boulders are moved or breached by vehicles. Most of the understory vegetation has been removed due to recreational use of the lower use area, and soil is exposed and compacted. Visitors have trampled vegetation along the streambanks, and there are signs of erosion in several locations.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Reduce the area of impact by using barrier rocks to delineate parking areas.
- Rip the existing access spur and close the lower use area to most use, although allow several clearly defined pedestrian routes from the upper use area to the creek.
- Iceberg the lower site and the western outer perimeter of the upper use area.
- Remove the existing user-defined campfire rings.
- Add a metal campfire ring and bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

The recreation site would remain open to both overnight and day use.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The delineated parking and iceberging would focus both vehicle and camping use at this site in appropriate areas (where additional impacts are minimized). Closure of the lower use area would reduce streambank erosion and sedimentation. Improving the natural setting of the site may enhance the recreational experience of some visitors. Additionally, the provision of a fire ring and metal bear box would encourage appropriate visitor behavior. The proposed treatments would reduce the capacity of the site to an appropriate and sustainable level by constraining parking (changing the site size from large to medium). Total use levels would not substantially change, however.



DRS-31 - Photo 1.

DRS-31 – Photo 2.



DRS-31 - Photo 3.

DRS-31 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-32/USFS 29.

Site Name Under Alternative 1 Restoration Plan: None (day use only).

Size: Small

Area of Impact: The approximate area of impact of DRS-32 is 1,420 ft².

Site Description: This recreation site is located at RM 16.06 and 9.8 miles along Sullivan Creek Road. This site currently consists of a small parking and camping area, a user-defined campfire ring, and user-defined trails to the creek.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: Recreational use at this recreation site has resulted in a loss of understory vegetation and exposed soil throughout the impact area. The soil is compacted in areas and eroding along the streambank.

Alternative 1 Site Treatment: The proposed action is to close this site to overnight use and designate it for day use only. This would be accomplished by implementing the following actions:

- Use barrier rocks along Sullivan Creek Road to prevent vehicle access to the site (parking would be allowed along the shoulder).
- Iceberg and revegetate the degraded areas.
- Remove the existing user-defined campfire ring.
- Maintain pedestrian access from Sullivan Creek Road to the creek. This access would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: Closing this site to overnight use would limit adverse user-induced effects and restore habitat, while retaining some recreation opportunities (compared to a full closure). The proposed treatments would promote understory growth of the riparian forest (by focusing recreational use along a narrower trail), and curb erosion and sedimentation. The proposed restoration treatments would relocate recreational use outside of the floodplain and improve riparian functions. Prohibiting overnight use would result in a loss of camping capacity at this site, but overall use levels are unlikely to change substantially (i.e., use levels are currently low and are anticipated to remain low post implementation).



DRS-32 - Photo 1.

DRS-32 – Photo 2.

Site Number Under Proposed Action Restoration Plan: DRS-33/USFS 30.

Site Name Under Alternative 1 Restoration Plan: Sullivan Creek 15.

Size: Small

Area of Impact: The approximate area of impact of DRS-33 is 2,400 ft².

Site Description: This recreation site is located at RM 17.30 and 11.1 along Sullivan Creek Road. The site consists of a small parking and two use areas. The first use area is above the creek near the parking area and has a user-defined campfire ring. The second use area is along the streambank and contains a user-defined campfire ring.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: Recreational use at this recreation site has resulted in a loss of understory vegetation and exposed soil throughout the impact area. The soil is compacted in areas and eroding along the streambank.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to delineate and separate the parking and camping areas.
- Iceberg along the periphery of the site, in particular near the top of the slope that leads down to the creek.
- Remove the three existing user-defined campfire rings, including one near the creek.
- Maintain pedestrian access to the creek from Sullivan Creek Road (this path would be designed to direct runoff into the forest rather than down the trail and into the creek).
- Implement minor grading and vegetation removal to create an area for tents.
- Add a bear box and fire ring.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: This recreation site is located in the upstream portion of the Pocket Alluvial Reach of the Sullivan Creek LWD Restoration Project. Construction is scheduled to occur in 2019. However, no impacts to this site are anticipated as all wood will be placed in the channel by riparian thinning and helicopters.

Anticipated Outcome: The proposed treatments would improve riparian function and habitat at this site by promoting understory growth and limiting future soil compaction. Recreational capacity and use levels would be comparable pre- and post-restoration.



DRS-33 - Photo 1.

DRS-33 - Photo 2.



DRS-33 – Photo 3.

DRS-33 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-34.

Site Name Under Alternative 1 Restoration Plan: Lower Gypsy Meadows Site 1.

Size: Medium

Area of Impact: The approximate area of impact of DRS-34 is 4,400 ft².

Site Description: This recreation site is located at RM 18.29, on USFS Road 2200250, and about 12 miles along Sullivan Creek Road. It is within the Lower Gypsy Meadows area, along with DRS-35, DRS-36, and DRS-36A (all four sites are located in a row along a short spur road off Sullivan Creek Road). The site consists of an open area between the internal access/spur road and a side channel of Sullivan Creek. There is a user-defined campfire ring at the site, as well as user-defined trails from the site to the creek. A single vault toilet is located nearby (adjacent to DRS-36).

Use: High. Overnight and day use both occur. This site, along with others in the Lower and Upper Gypsy Meadows area, is popular with equestrian users and hikers since several trails are accessible nearby.

Habitat Issues/Concerns: This recreation site contains areas of trampled vegetation and bare soil. Drainage is problematic, leading to large puddles of mud and standing water in spots. Given the unconfined nature of this site, use tends to expand or shift to avoid areas of standing water and mud.

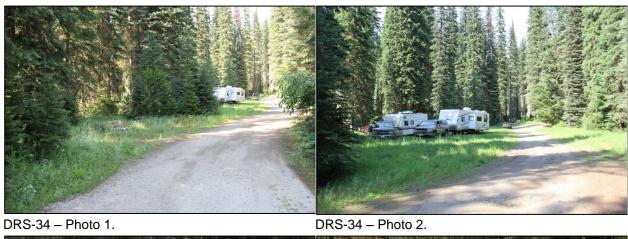
Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to better delineate appropriate use areas.
- Iceberg along the periphery of the site.
- Add gravel to define the parking area and improve drainage near the road.
- Remove the user-defined campfire ring and add a metal campfire ring and bear box.
- Maintain pedestrian access to the creek. This access would be designed to direct runoff into the forest rather than down the path and into the creek.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site, along with DRS-35, -36, -36A, and -36B would become part of the larger Lower Gypsy Meadows Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets. Pedestrian access from the Lower Gypsy Meadows sites to the stream would be

provided to maintain recreational use levels. Site expansion would provide additional camping opportunities and address sanitation issues associated with camping along Sullivan Creek by concentrating use closer to vault toilets. The addition of barrier rocks at this individual site would confine vehicle use to appropriate areas at this site. The iceberging would limit site creep and would help areas along the periphery of the site revegetate over time. Overall, the restoration treatments would improve riparian functions and habitat conditions. Capacity and recreation use levels would not change due to the restoration treatments at this site.



DRS-34 - Photo 3.

DRS-34 – Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-35.

Site Name Under Alternative 1 Restoration Plan: Lower Gypsy Meadows Site 2.

Size: Medium

Area of Impact: The approximate area of impact of DRS-35 is 5,660 ft².

Site Description: This recreation site is located at RM 18.3 and about 12 miles along Sullivan Creek Road. It is the second of four recreation sites along USFS Road 2200250, a spur off of Sullivan Creek Road, and is within the Lower Gypsy Meadows area. The site consists of an open area between USFS Road 2200250 and a side channel of Sullivan Creek. There is a user-defined campfire ring at the site, as well as user-defined trails from the site to the creek. There is an existing metal bear box, and a pedestrian trail leads through DRS-36 to the nearby single vault restroom.

Use: High. Overnight and day use both occur. This site, along with others in the Lower and Upper Gypsy Meadows area, is popular with equestrian users and hikers since several trails are accessible nearby.

Habitat Issues/Concerns: The site is in close proximity to important Westslope Cutthroat spawning habitat in Sullivan Creek. The primary area of use at this recreation site is devoid of understory vegetation. The soil is exposed and compacted in many locations.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to better delineate appropriate use areas.
- Rip and revegetate the existing eastern vehicle access.
- Iceberg along the periphery of the site to prevent site creep and promote the reestablishment of vegetation along the streambank.
- Relocate the existing metal campfire ring.
- Maintain the existing bear box.
- Maintain pedestrian access to the creek (designed to direct runoff into the forest rather than down the path and into the creek), as well as to the nearby toilet.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: The addition of barrier rocks would confine vehicle use to appropriate areas at this site. The iceberging would limit site creep and would help areas along the periphery of the site revegetate over time. Overall, the restoration

treatments would improve riparian functions habitat conditions. Capacity and recreation use levels would not change due to the restoration treatments at this site.



DRS-35 - Photo 1.

DRS-35 - Photo 2.



DRS-35 - Photo 3.

DRS-35 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-36.

Site Name Under Alternative 1 Restoration Plan: Lower Gypsy Meadows Site 3.

Size: Medium

Area of Impact: The approximate area of impact of DRS-36 is 3,690 ft².

Site Description: This recreation site is located at RM 18.3 and about 12 miles along Sullivan Creek Road. It is the third of three recreation sites along USFS Road 2200250, a spur off of Sullivan Creek Road, and is within the Lower Gypsy Meadows area. The site consists of a pull-through open area along USFS Road 2200250 that is suitable for parking vehicles and/or camping. There is a user-defined campfire ring at the site, as well as user-defined trails to the adjacent single vault toilet and recreation site DRS-35.

Use: High. Overnight and day use both occur. This site, along with others in the Lower and Upper Gypsy Meadows area, is popular with equestrian users and hikers since several trails are accessible nearby.

Habitat Issues/Concerns: This recreation site contains areas of trampled vegetation and bare soil. Given the unconfined nature of this site, use tends to expand or shift based on group size and site conditions.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Use barrier rocks to better delineate appropriate use areas.
- Remove the user-defined campfire ring and add a metal campfire ring and bear box.
- Maintain pedestrian access to DRS-35 and the nearby vault toilet.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site, along with DRS-34, -36, -36A, and -36B would become part of the larger Lower Gypsy Meadows Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets. Pedestrian access from the Lower Gypsy Meadows sites to the stream would be provided to maintain recreational use levels. Site expansion would provide additional camping opportunities and address sanitation issues associated with camping along Sullivan Creek by concentrating use closer to vault toilets. The addition of barrier rocks at this individual site would confine vehicle use to appropriate areas at this site. The iceberging would limit site creep and would help areas along the periphery of the site revegetate over time. Overall, the restoration treatments would improve riparian

functions habitat conditions. Capacity and recreation use levels would not change due to the restoration treatments at this site.



DRS-36 - Photo 1.

DRS-36 - Photo 2.



DRS-36 - Photo 3.

DRS-36 - Photo 4 (nearby vault toilet).

Site Number Under Proposed Action Restoration Plan: DRS-36A (this site was one of five new sites created under the Proposed Action Restoration Plan).

Site Name Under Alternative 1 Restoration Plan: Lower Gypsy Meadows Site 4.

Size: Small

Area of Impact: The approximate area of impact of DRS-36A is 722 ft².

Site Description: DRS-36A is a new recreation site located across USFS Road 2200250 from DRS-36 (note: this site was not included in the original 38 identified DRSs). It is an ideal location for a new site because of its close proximity to a vault toilet. The area is currently forested and not used for recreation. It has a relatively flat area that would be suitable for a small parking area and other recreation site amenities (e.g., tent location, fire ring, bear box, etc.).

Use: None.

Habitat Issues/Concerns: None. Habitat impacts from the new site would be minimal because the site is located near a vault toilet and outside the riparian zone and floodplain of Sullivan Creek.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Add gravel to delineate an appropriate parking area.
- Minor vegetation removal to create a focused use area.
- Add a metal campfire ring and bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site, along with DRS-34, -35, -36, and -36B would become part of the larger Lower Gypsy Meadows Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets. Pedestrian access from the Lower Gypsy Meadows sites to the stream would be provided to maintain recreational use levels. Site expansion would provide additional camping opportunities and address sanitation issues associated with camping along Sullivan Creek by concentrating use closer to vault toilets. The proposed treatments at this new individual recreation site would minimize potential future recreation-related habitat impacts, while enhancing the overall recreation experience along Sullivan Creek. The addition of DRS-36A would add overnight capacity in the Lower Gypsy Meadows area. Given the current high use levels at adjacent sites DRS-35 and DRS-36, similar levels of high use may be expected at DRS-36A in the future.



DRS-36A - Photo 1.



DRS-36A - Photo 3.



DRS-36A - Photo 2.



DRS-36A - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-36B (this site was one of five new sites created under the Proposed Action Restoration Plan).

Site Name Under Alternative 1 Restoration Plan: Lower Gypsy Meadows Site 5.

Size: Medium

Area of Impact: The approximate area of impact of DRS-36B is 3,149 ft².

Site Description: This recreation site is located at RM 18.3 and about 12 miles along Sullivan Creek Road (note: this site was not included in the original 38 identified DRSs). It is across Sullivan Creek Road from DRS-35 and DRS-36. The site consists of a short access road and parking area.

Use: Low. Overnight and day use both occur.

Habitat Issues/Concerns: Current habitat issues include damage to several trees, trampled vegetation, and a couple of user-defined trails. Impacts to Sullivan Creek are minimal because the site is located outside the floodplain and riparian forest.

Alternative 1 Site Treatment: The proposed treatments at this site include the following:

- Establish as a new recreation site.
- Add gravel to delineate appropriate vehicle parking areas.
- Add a metal campfire ring and bear box.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: No instream restoration is anticipated in the vicinity of this site.

Anticipated Outcome: This site, along with DRS-34, -35, -36, and -36a would become part of the larger Lower Gypsy Meadows Site group. These expanded site groups provide opportunities to cluster sites around existing or new vault toilets. Pedestrian access from the Lower Gypsy Meadows sites to the stream would be provided to maintain recreational use levels. Site expansion would provide additional camping opportunities and address sanitation issues associated with camping along Sullivan Creek by concentrating use closer to vault toilets. The addition of DRS-36B would add new overnight capacity in the Lower Gypsy Meadows area, while avoiding impacts to the stream. The site enhancements would focus recreation use and limit potential future impacts. Use levels would be moderate to high.



DRS-36B - Photo 1.



DRS-36B - Photo 3.





DRS-36B - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-37.

Site Name Under Alternative 1 Restoration Plan: Gypsy Meadows Sites 1 & 2.

Size: Large

Area of Impact: The approximate area of impact of DRS-37 is 4,895 ft².

Site Description: This recreation site is access via USFS Road 2200252 at RM 18.5 and approximately 12.3 miles along Sullivan Creek Road. It is one of two recreation sites in Upper Gypsy Meadows (along with DRS-38). The primary use area at this recreation site is directly adjacent to Sullivan Creek and within the floodplain. The use area near the creek includes a metal campfire ring and bear box. A well-worn user-defined trail provides pedestrian and equestrian access to the creek.

Use: High. Overnight and day use both occur. This site, along with others in the Lower and Upper Gypsy Meadows area, is popular with equestrian users and hikers since several trails are accessible nearby.

Habitat Issues/Concerns: The site is adjacent to critical spawning habitat for native fish. Vegetation in this area is trampled, and there are large areas of exposed soil on the streambank. The user-defined trail to the creek is eroded and likely contributes sediment to the creek. The soil around many of the nearby trees is disturbed due to horses that dig around the base of the trees when tied here. Given the open meadow setting of this recreation site (and the entire Upper Gypsy Meadows), the potential for visitors to spread out and disturb other areas is high. The main water access area for horses is in close proximity to the site, resulting in conflicts between campers at DRS-37 that view the water access as part of "their site" and campers using other portions of the meadow that need water access for their horses.

Alternative 1 Site Treatment: The proposed treatments at this site and DRS-38 would better align future recreation use of the Upper Gypsy Meadows area with the intended restoration goals of improved fish habitat and historic/cultural resource protection. Given the current and proposed access and recreation site amenity configuration of this area, the proposed treatments consider DRS-37 and DRS-38 as one large recreation site (as opposed to separate sites). The proposed treatments at this combined DRS-37 and DRS-38 site include the following:

- Add a second pair of highlines along the eastern side of the meadow.
- Delineate two new sites along the eastern side of the meadow adjacent to the existing and proposed new highlines.
- Provide a designated kitchen area in the southeast portion of the meadow along the treeline with a new campfire and bear box. This are would also serve as an additional site (Gypsy Meadows 3) outside of Back Country Horsemen work parties.

- Relocate all metal campfire rings and bear boxes to the east side of the meadow, adjacent to the existing and proposed new highlines. In total, the combined DRS-37 and DRS-38 area would provide three sets of metal campfire rings and bear boxes.
- Retain equestrian access to Sullivan Creek at the west edge of the meadow.
- Use barrier rocks to control vehicular access through the site.
- Install an informational kiosk north of the existing concrete pad.
- Improve accessibility based on FSTAG, FSORAG, and AGORT guidance.

Associated Sullivan Creek Restoration Actions: Spawning habitat for westslope cutthroat trout in Sullivan Creek would be monitored periodically to identify potential future impacts from continued recreation impacts to the creek at this site.

Anticipated Outcome: The proposed site enhancements, including barrier rocks along Sullivan Creek and relocated camping areas, would provide greater protection to Sullivan Creek and critical spawning habitat for native Westslope Cutthroat Trout, while maintaining and enhancing recreational opportunities. Capacity and recreation use levels would continue at current levels or increase with the addition of a new site pad and camping amenities.



DRS-37 - Photo 1.



DRS-37 - Photo 2.





DRS-37 - Photo 3.

DRS-37 - Photo 4.

Site Number Under Proposed Action Restoration Plan: DRS-38.

Site Name Under Alternative 1 Restoration Plan: Gypsy Meadows Site 3.

Size: Large

Area of Impact: The approximate area of impact of DRS-38 is 2,175 ft².

Site Description: This recreation site is access via USFS Road 2200252 at RM 18.5 and approximately 12.3 miles along Sullivan Creek Road. It is one of two recreation sites in Upper Gypsy Meadows (along with DRS-37). This primarily undefined use area is near the north end of Upper Gypsy Meadows and includes a user-defined campfire ring and a bear box.

Use: High. Overnight and day use both occur. This site, along with others in the Lower and Upper Gypsy Meadows area, is popular with equestrian users and hikers since several trails are accessible nearby. That said, this use area likely receives less use than DRS-37 given its distance from Sullivan Creek.

Habitat Issues/Concerns: Existing habitat concerns are minor at this site. The presence of the campfire ring indicates that visitors use the site and that it may be susceptible to future degradation (vegetation trampling, tree damage, soil compaction, etc.).

Alternative 1 Site Treatment: See the proposed treatments described above for DRS-37.

Associated Sullivan Creek Restoration Actions: See the monitoring actions described above for DRS-37.

Anticipated Outcome: See the anticipated outcomes described above for DRS-37.



DRS-38 – Photo 3. DRS-38 – Photo 4.

Table 4-1 summarizes the habitat concerns, proposed restoration treatments, and preand post-restoration impact areas at each site. Taking into account both day use and overnight DRSs, Figure 4-1 summarizes the pre-and post-restoration changes in site size, use level, and percentage of day versus overnight use sites available.

Proposed restoration treatments would address impacts from recreation sites to fish and wildlife by defining use areas, restoring vegetation, and closing high-impact sites in the CMZ and floodplain. Additional campsites in lower impact areas (i.e., farther away from Sullivan Creek) are proposed to offset lost recreational opportunities, resulting in no net loss.

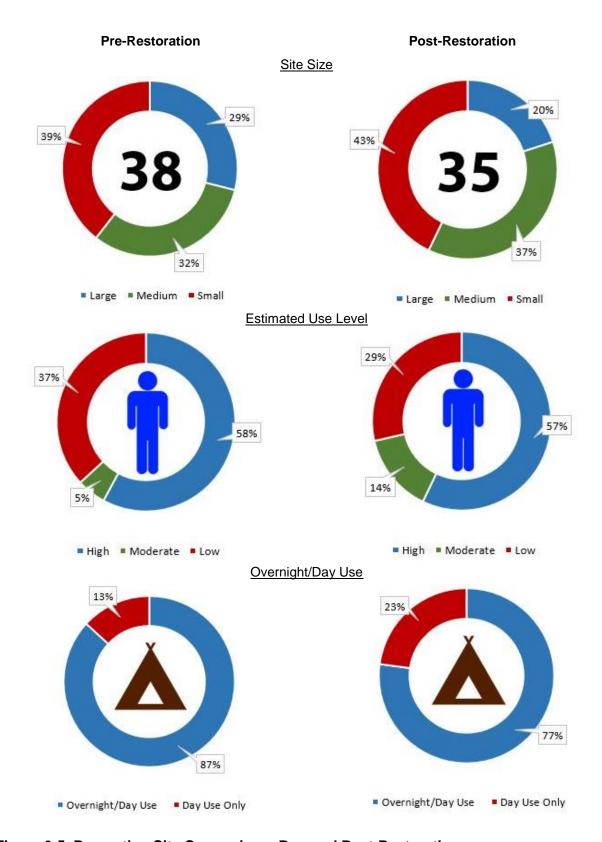


Figure 0-5. Recreation Site Comparison: Pre- and Post-Restoration.

Table 0-1. Summary of Existing Conditions and Proposed Restoration Treatments Under the Alternative 1 Restoration Plan.

	Pre-Restoration			Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
DRS-01	Large	High	Lack of understory vegetation and exposed soil Compacted soil and drainage issues Tree damage and exposed roots Streambank erosion (in particular from dredge mining)	North Fork Day Use	Site would be converted to day use with parking to accommodate 5+ vehicles Use barrier rocks to delineate appropriate vehicle access and parking areas Revegetate along the most damaged streambanks Remove the user-defined campfire rings Formalize access to the creek in four streambank locations (including one kayak launch) Add an informational kiosk	Large	Low (Day Use	
DRS-02A (new site proposed under the Proposed Action Restoration Plan)	Small	Low	 Some trampled vegetation Small areas of exposed and compacted soil 	Moon Flats 1 & 2	 Create two new sites as part of the larger Moon Flats Site group (Moon Flats 1 & 2) Use barrier rocks to delineate appropriate vehicle access and parking areas 	Medium	High	

	Pre-Restoration			Post-Restoration			
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
DRS-02	Large	High	 Trampled vegetation Exposed and compacted soil Sanitation issues Potential for future site creep 	Moon Flats 3, 4, & 5	 Remove the user-defined campfire rings Add metal campfire rings and bear boxes Add a restroom to serve all recreation sites in the vicinity of Moon Flats Maintain three sites as part of the larger Moon Flats Site group (Moon Flats 3, 4, & 5) Add barrier rocks to delineate appropriate parking areas Use iceberging to focus camping in select locations, in particular away from the streambank, and 	Medium	High
					to minimize site creep Add a bear box and metal campfire ring at each of the three sites		
DRS-03	Medium	High	 Lack of understory vegetation Exposed and compacted soil Tree damage and exposed roots 	Moon Flats 6	 Maintain one site (Moon Flats 6) as part of the larger Moon Flats Site group Add barrier rocks to delineate appropriate 	Medium	High

	Pre-Restoration			Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
			Potential for future site creep		parking and camping areas Create a vehicle turnaround Use light iceberging to pull use away from the steep slope to the creek Remove the user-defined campfire rings Add a bear box and metal campfire ring			
DRS-04	Small	Low	 Trampled vegetation Exposed and compacted soil Streambank erosion 	None (day use only)	Use barrier rocks to close the internal access road just beyond the small pullout Rip and revegetate road for 100 feet beyond barrier rocks; maintain a walking access path Create a j-hook style car turnaround	Small	Low (day use only)	
DRS-05	Large	High	 Trampled and lost vegetation Exposed and compacted soil Streambank erosion 	Sullivan Creek 1	 Use barrier rocks to delineate parking/vehicle access at the upper use area Move the location of the existing bear box at the upper use area 	Large	Moderate	

Pre-Restoration			Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
					 and add a metal campfire ring Use barrier rocks to close the internal access road to the lower use area Rip and revegetate the internal access road while maintaining a walking path to lower use area 		
DRS-06	Small	Low (day use only)	Potential for future impacts and site creep	None (day use only)	 Maintain closure to overnight camping Iceberg the perimeter to limit site creep Remove the user-defined campfire ring Maintain pedestrian access to the creek 	Small	Low (day use only)
DRS-07	Small	High	 Proliferation of user-defined trails to the creek Potential for future impacts and site creep 	Sullivan Creek 2	 Add additional barrier rocks to delineate parking Iceberg along the periphery of the site closest to creek Maintain existing bear box and add metal campfire ring Add slash to block access for off-road vehicles 	Small	High

Pre-Restoration			Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
					Maintain pedestrian access to the creek		
DRS-08	Small	High	 Potential for increased user-defined trail use Minor recreation-related habitat issues 	Sullivan Creek 3 & 3A	 Create one new site near existing vault toilet Add barrier rocks to limit vehicular use of user-defined trails Remove the existing user-defined campfire ring and install a new metal campfire ring Relocate existing bear box Add fire ring and bear box at new site 	Medium	High
DRS-09	Large	Low	 Located in active stream migration channel Vegetation trampling and loss Soil compaction High amounts of trash and recreation-related debris 	None (closed)	 Close site Add additional barrier rocks to prohibit access Rip and revegetate access road Remove the user-defined campfire ring Iceberg the primary use area 	None (closed)	None
DRS-10	Medium	High	 Located in active stream migration channel Vegetation loss Heavy tree damage 	None (closed)	 Close site Add additional barrier rocks to prohibit access 	None (closed)	None

Pre-Restoration			Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
			Exposed and compacted soil Soil erosion and undercutting of streambank		Remove the existing user-defined campfire rings Rip areas without mature trees and add iceberging to allow the main use area to revegetate naturally Add barrier rock and slash to further discourage camping Revegetate streambank		
DRS-11	Medium	High	 Trampled vegetation Exposed and compacted soil Tree damage and exposed roots 	Sullivan Creek 4	 Use barrier rocks to delineate parking area Add iceberging around the periphery of the current impact area (to reduce the size and extent of impacts) Maintain trail access from the site to the creek Add a bear box and metal campfire ring Retain three or four of the existing pedestrian access routes to the river Revegetate the streambank 	Small	High

	Pre-Restoration			Post-Restoration			
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
DRS-12	Medium	High	 Partially within the active stream migration channel Trampled vegetation Exposed soil Streambank erosion 	Sullivan Creek 5	 Install 35-ft radius vehicle turnaround Use barrier rocks to delineate vehicle turnaround Iceberg and revegetate around the periphery of the current impact area (to reduce the size and extent of impacts) Relocate bear box so it is near the metal campfire ring Remove the user-defined campfire ring near the parking area and add a metal campfire ring outside the flood-prone area Maintain pedestrian access from the site to the creek Revegetate the streambank 	Medium	High
DRS-13	Medium	High	 Lack of understory vegetation Exposed and compacted soil 	Sullivan Creek 6	 Install 35-ft vehicle turnaround Use barrier rocks to delineate vehicle turnaround Iceberg main use area (within flood- prone area) 	Medium	High

Pre-Restoration			Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
					 Rip the old road leading from upper site Relocate the existing bear box 		
					 Remove the user-defined campfire ring near the parking area, and add a metal campfire ring Maintain pedestrian access from the site to the creek 		
DRS-14	Large	High	Potential for future impacts and site creep	Conto Gulch 1 - 6	 Add five new sites along the spur road to create the larger Conto Gulch site group (Conto Gulch 1–6) Clear vegetation and provide light grading along the closed portion of the existing spur road such that it again functions as a pull-through off of Sullivan Creek Road Provide an appropriate parking area, metal campfire ring, and bear box at each site Add barrier rocks to define and delineate 	Large	High

	Pre-Restoration			Post-Restoration			
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
					appropriate use areas at all existing and new use areas Remove the existing user-defined campfire rings		
DRS-15	Small	Low	Potential for future impacts and site creep	Sullivan Creek 7	 Add barrier rock to better delineate parking area Remove the existing user-define campfire rings Add a metal campfire ring and bear box 	Small	Low
DRS-16	Small	Low	Potential for future impacts and site creep	Sullivan Creek 8	 Add barrier rock to delineate parking area Remove the existing user-defined campfire rings Add a bear box and metal campfire ring 	Small	Low
DRS-17	Large	High	 Partially within the active stream migration channel Lack of understory vegetation Exposed and compacted soil Exposed roots Erosion along streambank 	None (closed)	 Add barrier rock at Sullivan Creek Road to prevent access to site Remove all fire rings and bear boxes at site Side channel of Sullivan Creek within the site footprint would be reactivated 	None (closed)	None

	Pr	e-Restoration	n	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
					through the Sullivan Creek LWD Restoration Project			
DRS-18	Small	Low (day use only)	Minor habitat concerns	None (day use only)	Add barrier rocks to limit vehicle access	Small	Low (day use only)	
DRS-19	Small	Low	 Lack of understory and riparian vegetation Exposed and compacted soil Soil erosion along streambank 	None (day use only)	Close to overnight use Use barrier rocks along Sullivan Creek Road to prevent vehicle access to the site (parking would be allowed along the shoulder) Iceberg the site to promote natural revegetation Maintain pedestrian access from Sullivan Creek Road to the creek	Small	Low (day use only)	
DRS-20	Medium	Moderate	Potential for future impacts and site creep	John's Creek 1–6	 Add five new sites (including existing USFS Site 16) to create the larger John's Creek Site group (John's Creek 1–6) Clear vegetation and provide light grading to create an access road connecting the 	Large	Moderate	

	Pre	e-Restoration	1	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
					existing vault toilet to the sites to the east • Add barrier rock to delineate parking area at westernmost site • Remove the existing user-defined campfire ring • Add a bear box and fire ring to each of the six sites			
DRS-21	Small	High	 Lack of understory vegetation Trampled riparian vegetation Exposed and compacted soil Soil erosion along streambank 	None (day use only)	 Close to overnight use Use barrier rocks along Sullivan Creek Road to prevent vehicle access to the site (parking would be allowed along the shoulder) Remove the existing user-defined campfire ring Iceberg the site to promote natural revegetation Revegetate the streambank Maintain pedestrian trail access from Sullivan Creek Road to the creek 	Small	Low (day use only)	

	Pro	e-Restoration	1	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
DRS-21A (new site proposed under the Proposed Action Restoration Plan)	None	None	Some vegetation trampling along the user-defined trail that currently bisects the site	None	This site becomes part of the John's Creek Site group under the Alternative 1 Restoration Plan (Alternative 1); see summary of DRS-20 above	None	None	
DRS-22	Small	Low	 Trampled understory and riparian vegetation Exposed and compacted soil Soil erosion along streambank 	None (closed)	Close site Use barrier rocks along USFS Road 2200500 to prevent access to the site Iceberg and actively revegetate, in particular along the streambank	None (closed)	None	
DRS-23	Large	High	Potential for future impacts and site creep	Sullivan Creek 9	 Use barrier rocks to delineate parking and use areas Iceberg western use area while maintaining a walking path Rip and replant the spur road, while retaining a vehicle turn-around Close unofficial loop road with boulders and slash 	Medium	High	

	Pr	e-Restoratio	1	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
					Add a metal campfire ring and maintain the bear box			
DRS-24	Small	Low (day use only)	Within active stream migration channel Potential for future impacts	None (closed)	 Close site Add additional barrier rocks along Sullivan Creek Road Rip and plant existing access road Remove the existing user-defined campfire ring Create an earthen berm and trench to further restrict vehicle access 	None (closed)	None	
DRS-25	Large	High	 Lack of understory vegetation Exposed and compacted soil Tree damage and exposed roots Soil erosion along streambank 	Sullivan Creek 10	 Use barrier rocks to delineate parking area, as well as prohibit off-highway vehicle access to the site along Sullivan Creek Road Add iceberging around the periphery of the current impact area (to reduce the size and extent of impacts) Remove the user-defined campfire ring, and add a metal campfire ring and 	Medium	High	

	Pı	e-Restoration	n	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
					bear box in the primary use area • Maintain access from the site to the creek			
DRS-26	Small	Low	 Within the active stream migration channel Lack of understory and riparian vegetation Exposed and compacted soil Soil erosion along streambank 	None (closed)	 Close site Add more barrier rocks to prevent vehicle access Remove two existing user-defined campfire rings Rip and revegetate access road Iceberg the primary use area Revegetate the degraded streambank 	None (closed)	None	
DRS-27	Medium	High	Potential for future impacts and site creep	Sullivan Creek 11	 Add barrier rocks to better define and delineate appropriate use areas Remove user defined fire ring Add a metal campfire ring and bear box 	Medium	High	
DRS-28	Small	Low	 Within the active stream migration channel Lack of understory and riparian vegetation 	None (closed)	 Close site Add barrier rock along Sullivan Creek Road Iceberg the primary use area 	None (closed)	None	

	Pro	e-Restoration	1	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
			Exposed and compacted soilSoil erosion along streambank		Revegetate the disturbed streambank			
DRS-28A (new site proposed under the Proposed Action Restoration Plan)	Small	Low (day use only)	Limited areas of trampled vegetation Some streambank erosion	Sullivan Creek 12	Use barrier rocks to delineate the pullout along Sullivan Creek Road and limit vehicular access to the site Use iceberging to focus camping in select locations to minimize site creep Retain one of the user-defined trails to Sullivan Creek (close the trail that access the creek via a steep streambank) Add a metal campfire ring and a bear box	Small	Moderate	
DRS-29	Medium	High	Lack of understory vegetation	Sullivan Creek 13	 Close the stream-side use area by adding barrier rock and slash Remove the user-defined campfire ring along the streambank Allow vehicles and RVs to continue to park on the western side of the Old Pass Creek Bridge 	Medium	High	

	Pre-Restoration				Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level		
					Add barrier rocks at the western end of the Old Pass Creek Bridge to limit vehicle access				
					Maintain pedestrian access across the Old Pass Creek Bridge to the walk-in campsite on the opposite (east) side of the creek				
					Add metal campfire ring and bear box to define camp area on eastern side of bridge				
DRS-30	Small	Low (day use only)	Lack of understory vegetation along user- defined trail	None (day use only)	Add barrier rocks to limit potential vehicle entry to the site	Small	Low (day use only)		
			Exposed and eroded soil		Iceberg the steep upper portion of the trail where soil compaction and erosion is worst				
					Retain pedestrian access from the road through the iceberged area to the creek to focus recreation use				
DRS-31	Large	Moderate	 Trampled riparian/ streambank vegetation Lack of understory vegetation 	Sullivan Creek 14	Reduce the area of impact by using barrier rocks to delineate parking areas	Medium	Moderate		

	Pro	e-Restoration	1	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
			 Exposed and compacted soil Tree damage Soil erosion 		 Rip the existing access spur and close the lower use area to most use, but allow several clearly defined pedestrian routes from the upper use are to the creek Iceberg lower site and western use area Remove the user-defined campfire rings Add a metal campfire ring and bear box 			
DRS-32	Small	Low	 Lack of understory vegetation Exposed and compacted soil Soil erosion along streambank 	None (day use only)	 Close to overnight use Use barrier rocks along Sullivan Creek Road to prevent vehicle access to the site (parking would be allowed along the shoulder) Iceberg and actively revegetate the impact areas Remove the existing user-defined campfire ring Maintain pedestrian access from Sullivan Creek Road to the creek 	Small	Low (day use only)	

	Pro	e-Restoration	1		Post-Restoration	n	
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level
DRS-33	Small	Low	 Lack of understory vegetation Exposed and compacted soil Soil erosion along streambank 	Sullivan Creek 15	 Use barrier rocks to delineate and create separation between the parking and camping areas Iceberg along the periphery of the site, in particular near the top of the slope that leads to the creek Remove the user-defined campfire rings Maintain pedestrian trail access to the creek from Sullivan Creek Road Create tent area Add a bear box and fire ring 	Small	Low
DRS-34	Medium	High	 Trampled vegetation and exposed soil Problematic drainage Site creep (to avoid standing water and mud) 	Lower Gypsy Meadows 1	 Use barrier rocks to delineate appropriate use areas Add iceberging along the periphery of the site Add gravel to define parking area Remove user-defined campfire ring and add a new metal ring Maintain pedestrian access to the creek 	Medium	High

	Pro	e-Restoration	1		Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level		
DRS-35	Medium	High	Lack of understory vegetation Exposed and compacted soil	Lower Gypsy Meadows 2	 Use barrier rocks to delineate appropriate use areas Add iceberging along the periphery of the site Rip and revegetate the eastern vehicle access Relocate the existing campfire ring and maintain bear box Maintain pedestrian access to the creek, as well as the nearby vault toilet 	Medium	High		
DRS-36	Medium	High	 Trampled vegetation and exposed soil Site creep 	Lower Gypsy Meadows 3	 Use barrier rocks to delineate appropriate use areas Remove user-defined campfire ring and add a metal campfire ring and a bear box Maintain pedestrian access to DRS-35 and the nearby vault toilet 	Medium	High		
DRS-36A (new site proposed under the Proposed Action	Small	Low	• None	Lower Gypsy Meadows 4	Minor vegetation clearing to create a focused use area Use gravel to delineate an	Small	High		

	Pr	e-Restoration	1	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
Restoration Plan)					appropriate parking areaAdd a metal campfire ring and bear box			
DRS-36B (new site proposed under the Proposed Action Restoration Plan)	Medium	Moderate	 Some tree damage Trampled vegetation Several user-defined trails 	Lower Gypsy Meadows 5	 Use gravel to delineate appropriate vehicle parking areas Add a metal campfire ring and bear box 	Medium	Moderate	
DRS-37	Large	High	 Trampled vegetation Exposed and compacted soil Erosion along streambank Soil disturbance around trees (from horses) High potential for site creep Historic/cultural resource concerns 	Gypsy Meadows 1 & 2	 Delineate two new sites (Gypsy Meadows Sites 1 & 2) along the east side of the meadow adjacent to the existing and proposed new highlines Relocate existing campfire rings and bear boxes to two new sites Provide a designated kitchen area in the southeast portion of the meadow along the treeline. This area can also serve as Gypsy Meadows Site 3 outside of Back Country Horsemen work parties 	Large	High	

		Pre-Restoration	ı	Post-Restoration				
Site	Impact Area ¹	Estimated Use Level	Habitat Concerns	Site	Proposed Restoration Actions	Use Area ¹	Anticipated Use Level	
					Retain equestrian access to Sullivan Creek at the western edge of the meadow			
					Use barrier rocks to control vehicular access through the site			
					Install an informational kiosk north of the existing concrete pad			
DRS-38	Large	High	Potential for future impacts and site creep	Gypsy Meadows 3	See DRS-37	Large	High	

¹ Impact area and use area are qualitative area estimates based on the number of vehicles that can currently (Impact Area) and in the future (Use Area) park at each dispersed recreation site.